ABRAHAM LINCOLN BIRTHPLACE MEMORIAL BUILDING

HISTORIC STRUCTURE REPORT

Cultural Resources, Southeast Region
National Park Service

2001

Cultural Resources
Southeast Region
National Park Service
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2001
Historic Structure Report
Abraham Lincoln Birthplace Memorial Building
Hodgenville, Kentucky
LCS#: 00002

Previous page, Abraham Lincoln Birthplace National Historic Site, south elevation of Memorial Building. Photographed in 1984. National Park Service, Southeast Region Cultural Resources library.

The historic structure report presented here exists in two formats. A traditional, printed version is available for study at the park, the Southeastern Regional Office of the NPS (SERO), and at a variety of other repositories. For more widespread access, the historic structure report also exists in a web-based format through the SERO intranet, which includes links to individual files for a variety of photographs, documents, plans and other material used in compilation of the printed report.

Recommended by: _____ 6/3/02
Chief, Cultural Resources Stewardship, Southeast Regional Office — Date

Approved by: _____ 6/11/02
Superintendent, Abraham Lincoln Birthplace National Historical Site — Date

Concurred by: _____ 10/23/02
Regional Director, Southeast Region — Acting — Date

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APPENDICES ***continued***

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Executive Summary

The Abraham Lincoln Birthplace Memorial Building, designed by John Russell Pope, was constructed between 1909 and 1911 by the Lincoln Farm Association. Following donation in 1916, the memorial was managed by the War Department until 1933 and then acquired by the National Park Service in 1933. The park was designated a National Historic Site in 1959. As the 100th anniversary of the Memorial Building approaches, it remains in good condition overall.

SITE/LANDSCAPE

The memorial landscape is considered to be all the land on the west side of the park that constitutes the original Lincoln Farm Association (LFA) purchase, plus the additional land that was purchased to protect the boundary oak. Because of the length of time associated with the development of this area, as well as the irreversible changes to the original landscape, rehabilitation of the overall memorial landscape is the recommended treatment approach. However, within the zone immediately

around the Memorial Building, limited restoration of the Pope landscape is recommended. Consult the Cultural Landscape Report (CLR) for detailed provisions.

MEMORIAL BUILDING

The present condition of the Abraham Lincoln Memorial Building reflects the changes accrued over its ninety-year history. Efforts to regulate the building's interior environment have yielded solutions which today seem inappropriate. The total effect of these alterations makes for a less appealing experience of the traditional Lincoln birthplace. As one approaches the building, the focal point is no longer the monumental bronze doors but rather the glare of a reflective glass entrance unit. Inside, this rose-tinted glass, along with the stark and unnatural quality of fluorescent light, creates a blur of reflective patterns and obscures the cabin's relation to the original property. From the Memorial's specific use of glazing, it is clear that the building was not conceived to block out natural phenomena such as sun and shade, but rather to envelope inside the monument what was once the domestic scene of Lincoln. When entering the Memorial, visitors should not feel that they are in a hermetic environment but, rather, witnessing an isolated moment in time, now bracketed by stone and glass.

Ultimate treatment for the Abraham Lincoln Birthplace Memorial Building should be restoration to the 1909-1911 historic period. This period of significance relates to National Park Service thematic studies on the American Public Memorial and the Design and Construction of the Lincoln Birthplace Memorial.

To restore the building to this period, the following will be required:

1. Restore skylight and remove wood-framed drop ceiling. Remove non-historic corrugated acrylic panels from historic copper ceiling grid and replace with flat, frosted panels, similar to original glass.
2. Remove non-historic aluminum door systems at both entrances.
3. Remove non-historic solar film from glass.
4. Restore plaster profile on interior walls.
5. Paint plaster interior per historic period 1909 - 1933.
6. Compose and install four marble plaques on north wall, according to guidelines initiated in 1959.
7. Redefine engraved text on exterior granite panels flanking the front (south) entrance.
8. Remove simulated clay floor in cabin and resurface concrete floor per historic period 1909 - 1911.
9. Remove or redesign ranger desk to minimize adverse visual impact to historic interior.

The previous conditions are detailed as follows:

Skylight

The original roof-level pavement lights were enclosed under a metal framework of wire glass sometime between 1929 and 1959. In 1959 the skylight was rendered inoperable by the construction of a wood-framed drop ceiling which houses fifteen fluorescent lights. The original glass panes of the copper ceiling light were replaced with the present acrylic panels. The panels should be replaced with a material to resemble the original

frosted glass, with appropriate ultraviolet filtration and thickness capable of spanning the mullion. The plenum and florescent lights should be removed and the skylight repaired, allowing the room to be naturally illuminated. Fluorescent or spot lights should be mounted along the walls above the rooflight to provide a secondary light source for cloudy days and evening illumination.

Doors

The present aluminum-framed doors were added to the building in 1971, presumably to offset use of the large original bronze doors and to better regulate environmental conditions. In review, we feel that their implementation is not sensitive to the overall design of the Memorial or to the processional experience. Problems include disproportionate handles, a visually obstructive aluminum frame, and the imposition of a transom window against the ornate bronze doors. Ideally, we would recommend a return to the use of the original doors, but due to their cumbersome weight, this option is not practical for the accessibility of many visitors. We instead recommend replacing the two aluminum entrance units with a total glass system and restoring the bronze finish on the original doors. A total glass system constructed of tempered glass panes would satisfy the same requirements as the aluminum doors but would have a minimal effect on the building's appearance.

Tinted Glass

The tinting done in 1992 was specified to reduce ultraviolet light levels in the Memorial interior, thereby better preserving the cabin. This justification differs from that stated in the Long Range Interpretive Plan synopsis (April 1999), which cites the film as reducing glare for visually impaired visitors. Once the objective of controlling the light conditions is understood, an effort should be made to find a more appropriate solution. Advances in ultraviolet protection have produced clear films which would neither taint the quality of light entering the Memorial nor create reflected surfaces on the exterior.

Walls

The surface of the walls must be refinished to remove paint splatter and drip from decades of paint applications. This is especially problematic along the molding and other articulated surfaces like the ceiling rosettes. The walls were last repainted in 1992 and had been repainted every seven to ten years. The recommendation calls for a return to the original earth-tone color scheme. (See Paint Study, Appendix G.)

Plaques

The original Nancy Hanks and Tom Lincoln plaques were covered in 1941 due to reported historical inaccuracies in the presented information. In 1959 all four plaques were removed, as any rededication of the two biographical plaques was contingent on the content of the remaining two plaques. From studying the contemporary memorandums, it seems a solution which utilizes direct quotations instead of historical narratives would be most appropriate. These solutions were prepared by Lincoln scholars prior to the dedication of the visitor center but never implemented.

In addition to removal of non-historic intrusions and the reinstallation of historic

features, the following are required to insure preservation of the Memorial Building:

EXTERIOR ENVELOPE

1. Clean and restore historic exterior finished surfaces (granite, bronze, copper). The masonry was last repointed in 1985 and is typically done every 10 years.
2. Clean, refinish, and stabilize the roof access ladder. Rust from the ladder has stained the granite surface of the Memorial. Consider redesign of the harness system, possibly involving a pulley. The ladder has been restricted since 1990 due to safety concerns.
3. Repair/repoint monumental stairs. Major repointing was last performed in 1990.
4. Repair the broken copper mounting bracket at downspout on west elevation.

INTERIOR ENVELOPE

1. Clean and repolish marble surfaces.
2. Gently clean bronze wall grilles, avoiding verdigris.

ROOF

1. Repair loose and open seams. A roofing consultant should be hired to evaluate the condition of the overall roofing system. Total replacement of roofing may be needed.
2. Repair and restore the skylight according to provisions previously outlined.

UTILITIES

1. Redirect air flow from the HVAC floor-mounted supply grille away from the cabin to provide more even circulation. The present condition directs most of the refreshed air directly into the historic return grille mounted on the wall. (See Eubank's 1989 inspection, Appendix I.)
2. As condensation continues to be a problem on windows and walls, consider installing Temperature Compensating Humidity Control (TCH). This device changes interior humidity levels according to outdoor temperature changes.

Administrative Data

LOCATIONAL DATA

Building Name: Abraham Lincoln Birthplace Memorial Building
Building Address: 2995 Lincoln Farm Road, Hodgenville, KY 42748
Park Orgcode: 5540
District Orgcode: 5540
Location: Center of western end of park
County: Larue

REAL PROPERTY INFORMATION

Acquisition Date: 1933
General Ledger Acct Mo: 215
Sf 1166 Number: 6070
Sf 1166 Designation: Visitor Contact
Total Improvement/: Modification Costs $140,163 (known)

NUMBERING INFORMATION

LCS#: 00002

SIZE INFORMATION

Total Floor Area:	1772 SF
First Floor Area:	1772 SF
Additional Floor Area:	0 SF
Total Basement Area:	665 SF
Finished Basement Area:	665 SF
Unfinished Basement Area:	0 SF
Roof Area:	1740 SF
Perimeter Length:	170 LF
Number Of Stories:	1
Number Of Rooms:	1
Number Of Bathrooms:	0

BUILDING CODE INFORMATION

Applicable Codes:	NFPA 101, ANSI-All7.1
Occupancy Classification:	Assembly
Occupancy Load:	100
Hazard Of Contents:	Ordinary
Seismic Zone:	2
Construction Type:	Type 11

CULTURAL RESOURCE DATA

National Historic Landmark:No

National Register of Historic Places: listed 12/13/1977

Significance Level: National

Significance description: The Memorial Building, built with funds raised by the Lincoln Farm Association, a nonprofit association of prominent Americans, is nationally significant under NR criteria A and C for its associations with the themes of Lincoln commemoration and architecture.

Historical Background & Context

Initiation of the Memorial

The Lincoln birthplace farm came to the attention of Robert Collier, publisher of *Collier's* magazine, in 1904, when he read a newspaper article describing its neglected condition. When the farm was placed at public sale in August 1905, Collier sent Richard Lloyd Jones, *Collier's* editor, to purchased the 110-acre property. In the February 10, 1906, issue of *Collier's*, Jones presented the plans of the newly-formed Lincoln Farm Association, whose Board of Trustees included a number of notable Americans such as Samuel Gompers, William H. Taft, Samuel Clemens, William Jennings Bryan; James Cardinal Gibbons,Archbishop of Baltimore; Ida Tarbell; and others. With headquarters in New York City, the association proposed to "make of Lincoln's humble birthplace a national shrine, and on the one hundredth anniversary of his birth to dedicate it to the American people as the abiding symbol of the opportunity with which democracy endows its men." The plans called for acquisition of the original birth cabin, cleaning and protection of the old spring, erection of a monument to Lincoln, construction of a historical museum, and better maintenance of the farm.

Earlier efforts to commemorate the site of Lincoln's home for the first two and a half years of his life had failed. Attempts by private parties and owners of the property to erect a monument or to persuade the state or federal government to purchase the farm were unsuccessful. The birth cabin itself was removed from the farm in 1861 and returned in 1895 in time for a nearby encampment of the Grand Army of the Republic. In 1897, the owner dismantled the cabin for exhibit at the Nashville Centennial, after which the logs made their way around the country to various expositions until the Lincoln Farm Association discovered them in a basement in Long Island and purchased them. The authenticity of the birth cabin has been questioned because of its extensive travels and the replacement of many of the logs during dismantling and reconstruction for display. Investigations by the National Park Service and others uncovered no conclusive proof of the logs' origin, and the cabin is now referred to as Lincoln's "traditional" birthplace.

The Lincoln Farm Association launched a fund-raising campaign in 1906 to carry out their plans for the Lincoln farm. The Association appealed to the general public, limiting donations to $25 for the first two years of the drive. The board eliminated the maximum limit in 1908 when they calculated that the fund-raising costs had totaled more than half the amount received. The less-than-successful fund drive prevented the Association from dedicating the Memorial Building in 1909, on the 100th anniversary of Lincoln's birth, as originally planned. Cornerstone ceremonies, however, were held on February 12, with President Theodore Roosevelt in attendance, as well as other dignitaries and nearly 8,000 visitors.

Design

Noted landscape architects Jules Guerin and Guy Lowell visited the site in early 1907 to survey the grounds and make recommendations for improvements. In April 1907 the Lincoln Farm Association Executive Committee instructed trustee Thomas Hastings to select a group of architects to be invited to submit plans for a Lincoln memorial building design competition. In collaboration with architect Charles McKim, Hastings selected architect John Russell Pope.

Born in New York in 1874, John Russell Pope studied architecture under William R. Ware at Columbia University. He graduated in 1894, at which time he won two university awards, one to the American Academy in Rome and one for travel. During his two year sojourn through Italy and Greece, Pope made measured drawings of antique edifices. Late in 1896, Pope went to Paris, where he attended the Ecole des Beaux-Arts. He returned to New York in 1900 and established an office.

In June 1907 Pope visited the site to survey the grounds and draft working plans. Pope designed the memorial building fairly early in his career, and probably received the commission because of his association with McKim. Noted for his designs in the classical tradition, Pope's works included colleges, churches, hospitals, monuments, memorials, and private homes. Many of his well-known buildings, such as the Jefferson Memorial, the National Archives, and the Na-

tional Gallery of Art, are found in Washington, D.C. Pope's Pharmaceutical Institute building expanded upon design elements seen in the Lincoln Memorial Building. Pope's classically-inspired buildings are noted for their clear forms and grand spirit. Practicing until his death in 1937, Pope was the foremost inheritor of McKim's severe classicism. As a result, he earned the title "the last of the Romans."

Contractor & Construction

Five contractors submitted construction bids for building, terracing, and excavation for the memorial. The Norcross Brothers Company of Louisville was selected as primary contractor, with a bid of $237,101, and began work in November 1907. When the fund-raising efforts did not produce the anticipated amount of money and attempts to obtain funds from Congress failed, Pope's original plan, which called for placing the cabin in a central court with a movable roof and surrounded by museum halls, was simplified. Pope's associate, Edwin Robinson Will, supervised construction of the memorial building, designed the landscaping of the grounds, and oversaw completion of the details.

The Dodds Granite Company, from Milford, Massachusetts, supplied their popular Stony Creek Milford Pink Granite, which was used on many public buildings in the era. The interior marble was quarried in Tennessee.

The cornerstone was laid February 12, 1909, and the building was completed in the fall of 1911. Missouri governor Joseph W. Polk, president of the Lincoln Farm Association, and President William Howard Taft addressed a crowd of 3,000 who attended the opening ceremonies.

Stewardship & Alterations

The Lincoln Farm Association maintained the memorial for five years. Congress voted in 1916 to accept donation of the Lincoln birthplace farm and its $50,000 endowment from the Lincoln Farm Association. According to the legislation, the property was "dedicated to the purpose of a National Park or reservation." The U.S. Department of War administered the property until 1933, when jurisdiction was transferred to the Department of the Interior, National Park Service, where it has remained since that time.

The War Department undertook a number of improvements to the building in 1929 and 1930 including: replacing the roof, constructing a pavilion directly behind the structure, adding a new restroom facility, and laying new steps and walks on the east and west sides. The restroom and pavilion buildings were demolished in 1959 when the new visitor center was constructed.

Originally on the interior of the Memorial Building, along the east and west walls, were four marble tablets, carved with various texts. Two of the marble tablets, one containing a description of Nancy Hanks Lincoln, the other describing Thomas Lincoln, were plastered over and painted in 1941 because of questions concerning the historical accuracy of their content. Subsequently, the two remaining tablets were removed in 1959.

It may be assumed that the plaques were an original component to the Memorial Building, as funded by the Lincoln Farm Association. At this time, the process of choosing those inscriptions is not

fully understood.

In 1936, Historian Alvin P. Stauffer wrote a memorandum noting inaccuracies in inscriptions and quotations for two plaques describing Lincoln's parents: one for Nancy Hanks and another for Thomas Lincoln.

In 1940, NPS Regional Historian Roy E. Appleman prepared texts to replace tablets of Nancy Hanks and Thomas Lincoln. Four Lincoln experts disputed Appleman's newly composed texts without coming to a conclusion.

In 1941, the two plaques describing Lincoln's parents were covered in plaster and painted. They were intended to be replaced after World War II.

In 1948, NPS Director Drury approved a recommendation to use excerpts from the Lincoln autobiography sent to Jesse W. Fell on December 20, 1859, as the replacement inscription for the plaques describing Lincoln's parents.

But Drury's recommendation was complicated by the fact that one of the remaining plaques already contained an excerpt from the Fell autobiography. In 1949, Superintendent Hoskins offered the following recommendation:

> *1. Remove plaque with excerpt from Lincoln's autobiography for Fell.*
>
> *2. Use this space and the space formerly occupied by Thomas Lincoln plaque to give complete Fell autobiography.*
>
> *3. Use space formerly occupied by Nancy Hanks plaque for information about Thomas Lincoln and Nancy Hanks.*
>
> *4. The other plaque (containing inspirational passages) to remain as is.*

These suggestions were further argued by the park and scholars.

In 1959, all four marble plaques were completely removed. Vacancies in the wall were filled with cement mortar and prepared for the application of plaster.

Also in that year, a wood-framed drop ceiling was placed over the skylight, and fluorescent lights were added to artificially illuminate the cabin.

Original and Subsequent Owners

The following is an incomplete listing of the ownership of the Lincoln farm, taken from information in the National Park Service Administrative History:

> **December 12, 1808** - Isaac Bush to Thomas Lincoln
> **December 1816** - Court-ordered sale by commissioner to John Welsh
> **August 28, 1905** - Sale by commissioner to Robert J. Collier
> **June 19,1906** - Robert J. Collier to Lincoln Farm Association
> **July 18, 1916** - Lincoln Farm Association to U.S. Government

Chronology of Development & Use

LINCOLN FARM ASSOCIATION, 1911-1916

CONSTRUCTION DATE: 1909-1911
CONSTRUCTION: Built
TEXT: Built by Lincoln Farm Association

COST: $250,000
DESIGNER: John Russell Pope
DESIGNER'S OCCUPATION: Architect

WAR DEPARTMENT, 1916-1933

CONSTRUCTION DATE: 1927-1929
CONSTRUCTION: Rehabilitation
TEXT: Replace 3 glass windows

COST: $30
DESIGNER:
DESIGNER'S OCCUPATION: Day Labor

CONSTRUCTION DATE: 1929
CONSTRUCTION: Rehabilitation
TEXT: Painting interior

COST: $260
DESIGNER: S.T. Carroll
DESIGNER'S OCCUPATION: Contractor

CONSTRUCTION DATE: 1929
CONSTRUCTION: Preservation
TEXT: Resoldering of caps to ceiling steel work

COST: $20
DESIGNER: W. D. Durham
DESIGNER'S OCCUPATION: Contractor

CONSTRUCTION DATE: 1929
CONSTRUCTION: Rehabilitation
TEXT: Installation of new furnace & floor registers

COST: $458
DESIGNER: Stratton & Terstegge Co.
DESIGNER'S OCCUPATION: Contractor

* document located in Appendix I

CONSTRUCTION DATE: 1929
CONSTRUCTION: Rehabilitation
TEXT: Add roof slab over 1909 roof
(http://crs/historic/hsr/abli/pdf/draw_roof_29.pdf)
* drawings

COST: $unknown
DESIGNER:
DESIGNER'S OCCUPATION:

CONSTRUCTION DATE: 1929
CONSTRUCTION: Rehabilitation
TEXT: Repairs to roof

COST: $135
DESIGNER: W. D. Durham
DESIGNER'S OCCUPATION:
Contractor

NATIONAL PARK SERVICE, 1933-present

CONSTRUCTION DATE: 1941
CONSTRUCTION: Altered
TEXT: Plaster over two (2) marble plaques

COST: $unknown
DESIGNER:
DESIGNER'S OCCUPATION:

CONSTRUCTION DATE: 1959
CONSTRUCTION: Altered
TEXT: Removal of plaques
(http://crs/historic/hsr/abli/pdf/plaque_59.pdf)
* Purchase order
* Contract Specifications
* Memo concerning removal

COST: $1185
DESIGNER: George F. Clark
DESIGNER'S OCCUPATION:
Contractor

CONSTRUCTION DATE: 1959
CONSTRUCTION: Rehabilitation
TEXT: Painting interior (http://crs /historic/hsr/abli/pdf/
paint_59.pdf)
* Memo
* Color schedule

COST: $889
DESIGNER:
DESIGNER'S OCCUPATION:
Contractor

CONSTRUCTION DATE: 1959
CONSTRUCTION: Altered
TEXT: Installed plenum
(http://crs/historic/hsr/abli/pdf/plenum_59.pdf)
* Purchase order
* Contract specifications
* Sectional drawings

COST: $488
DESIGNER: Logan Bennet
DESIGNER'S OCCUPATION:
Contractor

CONSTRUCTION DATE: 1959
CONSTRUCTION: Altered
TEXT: Installed electric lighting (http://crs/historic/hsr/abli/pdf/
lighting_59.pdf) in ceiling skylight
* Purchase order
* Contract specifications

COST: $890
DESIGNER: Hughes & Johnson
Electric
DESIGNER'S OCCUPATION:
Contractor

* document located in Appendix I

CONSTRUCTION DATE: 1959
CONSTRUCTION: Preservation
TEXT: Renovate bronze doors
(http://crs /historic/hsr/abli/pdf/doors_59.pdf)
* Memo for work request
* Purchase order

COST: $700
DESIGNER: Schiller
DESIGNER'S OCCUPATION: Contractor

CONSTRUCTION DATE: 1971
CONSTRUCTION: Rehabilitation-
TEXT: Installation of air conditioning
(http://crs /historic/hsr/abli/pdf/hvac_71.pdf
* Purchase order
* Schematic diagram

COST: $13600
DESIGNER: Addie S. French, Inc.
DESIGNER'S OCCUPATION: Contractor

CONSTRUCTION DATE: 1971
CONSTRUCTION: Altered
TEXT: Installation of aluminum entrance unit
(http://crs/historic/hsr/abli/pdf/entance_71_po.pdf)
* Purchase order

COST: $815
DESIGNER: Central Glass Co.
DESIGNER'S OCCUPATION: Contractor

CONSTRUCTION DATE: 1971
CONSTRUCTION: Altered
TEXT: Installation of 800 feet underground extension to transformer
(http://crs/historic/hsr/abli/pdf/electrical_71_po.pdf)
* Purchase order

COST: $2400
DESIGNER: Kentucky Utilities
DESIGNER'S OCCUPATION: Utility provider

CONSTRUCTION DATE: 1975
CONSTRUCTION: Restoration
TEXT: Cleaning, repointing & waterproofing exterior
(http:crs/historic/hsr/abli/pdf/pointing_77.pdf)
* Section 106
* KY Heritage Commission approval

COST: $10633
DESIGNER: Mid-continental Waterproofing Co.
DESIGNER'S OCCUPATION: Contractor

CONSTRUCTION DATE: 1977
CONSTRUCTION: Restoration
TEXT: Repainting interior
(http:crs/historic/hsr/abli/pdf/paint_77.pdf)
* Section 106
* KY Heritage Commission approval
* Purchase Order
* Contract specifications

COST: $1685
DESIGNER: Puckett
DESIGNER'S OCCUPATION: Contractor

CONSTRUCTION DATE: 1977
CONSTRUCTION: Altered
TEXT: Construction of information counter
(http:crs/historic/hsr/abli/pdf/infodesk.pdf)
* Memo from 1959
* Purchase order

COST: $447
DESIGNER: Ronnie L. Chelf
DESIGNER'S OCCUPATION:

* document located in Appendix I

CONSTRUCTION DATE: 1977
CONSTRUCTION: Rehabilitation
TEXT: Painting roof light
(http:crs/historic/hsr/abli/pdf/rooflight_77_po.pdf)
* Purchase order

COST: $72
DESIGNER: Puckett
DESIGNER'S OCCUPATION: Contractor

CONSTRUCTION DATE: 1979-1981
CONSTRUCTION: Rehabilitation
TEXT: Roof repairs
(http:crs/historic/hsr/abli/pdf/roof_81.pdf)
* Section 106
* Bid acceptance
* Inspection of roof conditions
* Memo to replace skylight
* Memo to flush roof drains
* Unit price contract
* Photographs

COST: $13,807
DESIGNER: McGuffey Industrial Contracting
DESIGNER'S OCCUPATION: Contractor
INSPECTOR: Bishop

CONSTRUCTION DATE: 1979-1982
CONSTRUCTION: Altered
TEXT: Replacement of stairwell cover
(http:crs/historic/hsr/abli/pdf/stairwell cover_79.pdf)
* Section 106 submission
* Purchase order for steel
* Purchase order for glass

COST: $706
DESIGNER FOR STEEL: John Mills
DESIGNER FOR GLASS: Central KY Glass Co.

CONSTRUCTION DATE: 1983
CONSTRUCTION: Rehabilitation
TEXT: Plastering & painting interior
(http:crs/historic/hsr/abli/pdf/paint_83_upc.pdf)
* Unit price contract

COST: $6820
DESIGNER: Cravens Construction Company
DESIGNER'S OCCUPATION: Contractor

CONSTRUCTION DATE: 1984
CONSTRUCTION: Rehabilitation
TEXT: Replacement of air conditioning compressors
(http:crs/historic/hsr/abli/pdf/hvac_84_po.pdf)
* Purchase order

COST: $3175
DESIGNER: French Mechanical Inc.
DESIGNER'S OCCUPATION: Contractor

TRIP REPORT: 1984
INSPECTION: Skylight
(http:crs/historic/hsr/abli/pdf/skylight_84_inspec.pdf)
* Report
* Drawing

INSPECTOR: David Ates

* document located in Appendix I

CONSTRUCTION DATE: 1985
CONSTRUCTION: Preservation
TEXT: Repointing Memorial Building and steps (http://crs/historic/hsr/abli/pdf/steps_85.pdf)
* Section 106
* KY Heritage Commission approval
* Unit price contract

COST: $39433
DESIGNER: OHA and R&F Weaver
DESIGNER'S OCCUPATION: Contractor

TRIP REPORT: 1989
INSPECTION: HVAC
(http://crs/historic/hsr/abli/pdf/hvac_89_inspec.pdf)

INSPECTOR: John Eubank

TRIP REPORT: 1990
INSPECTION: Ladder
(http://crs/historic/hsr/abli/pdf/ladder_90.pdf)
* Memo from ABLI
* Memo restricting access
* photos

INSPECTOR: David Ates

CONSTRUCTION DATE: 1990
CONSTRUCTION: Preservation
TEXT: Repointing & cleaning Memorial Building steps
(http://crs/historic/hsr/abli/pdf/pointing_90.pdf)
* Memo of task directive
* Section 106 submission
* Memo status report
* Memo modification of task directive

COST: $ 11513
DESIGNER:
DESIGNER'S OCCUPATION: Contractor

CONSTRUCTION DATE: 1991
CONSTRUCTION: Altered
TEXT: Americans with Disabilities compliance
(http://crs/historic/hsr/abli/pdf/ada_91.pdf)
* Section 106 submission
* Purchase order for doors
* Purchase order for handle and rail

COST: $5375
DESIGNER: NPS and Riverside Door Co.
DESIGNER'S OCCUPATION: Contractor

CONSTRUCTION DATE: 1992
CONSTRUCTION: Altered
TEXT: Install receptacle and lighting system
(http://crs/historic/hsr/abli/pdf/electrical_92_po.pdf)
* Purchase order

COST: $580
DESIGNER: Gene Ray Electrical
DESIGNER'S OCCUPATION: Electrician

CONSTRUCTION DATE: 1992
CONSTRUCTION: Rehabilitation
TEXT: Plastering and repainting the Memorial interior
(http://crs/historic/hsr/abli/pdf/paint_92.pdf)
* Section 106
* Requisition
* Contract specifications

COST: $23,450
DESIGNER: Patterson
DESIGNER'S OCCUPATION: Contractor

* document located in Appendix I

CONSTRUCTION DATE: 1992
CONSTRUCTION: Altered
TEXT: Glass tinting
(http://crs/historic/hsr/abli/pdf/tint_92.pdf)
* Section 106 submission
* Estimate

COST: $1,500
DESIGNER: Pro-Tint
DESIGNER'S OCCUPATION: Contractor

CONSTRUCTION DATE: 1993
CONSTRUCTION: Rehabilitated
TEXT: HVAC system replacement
(http://crs/historic/hsr/abli/pdf/hvac_93.pdf)
* diagram

COST: $unknown
DESIGNER:
DESIGNER'S OCCUPATION:

TRIP REPORT: 1996
INSPECTION: masonry pointing, ladder, basement
(http://crs/historic/hsr/abli/pdf/inspec_96.pdf)

INSPECTOR: Bill Love

* document located in Appendix I

Physical Description

This section contains a systematic accounting of all features, materials, and spaces according to age, significance, and general integrity. A detailed inventory of individual building features is included in Appendix C, but are summarized in the body of this chapter. The following text and detailed assessment discuss causes of deterioration and structural inadequacy.

Overview

The traditional Lincoln birth home is enclosed in the Abraham Lincoln Birthplace Memorial Building, a tall one-story Beaux Arts Classical building built over a two and a half-year period beginning in February 1909. The cornerstone was laid in honor of the anniversary of Lincoln's 100th birthday. The structure is cubical and serves as the repository for the traditional birth home of Abraham Lincoln. The traditional birth home itself is a simple log cabin with a wood roof and a fireplace attached. The enclosing building features a six-column Doric portico on the south facade and presents a formal and imposing mass atop a long processional stair. The east and west facades each feature a four-columned portico with engaged Doric columns. The north facade recalls the south facade, with its inset panels conforming to the south portico spacing. All facades are clad in Stoney Creek Milford Pink Granite.

The Abraham Lincoln Birthplace Memorial Building has been well maintained as part of the National Park System, and all elements and features are in good condition.

Architectural Narrative

The Abraham Lincoln Birthplace Memorial Building is located on a mostly trapezoidal site of approximately 100 acres. The memorial building was constructed at the top of a hill. It is approached from the south via a wide for-

mal stair of fifty-six steps, one for each year of Lincoln's life. It is also accessible by an unpaved service road to the north. The footprint of the building is elevated about one inch above the surrounding platform sidewalk. The platform sidewalk is about 75 feet by 80 feet and features several concrete benches around its perimeter. There are also steps at the center of the east, north, and west sides. It is about 500 feet west of the Visitor Center and is 49'-5" x 36'-6" and 35'-5" to the top of the common parapet. The south facade features a taller pediment. An additional continuous cornice wraps around the structure at a height of 29'-5" on top of a crenelated molding.

South Elevation

Above each of the six columns supporting the portico there is a rosette in the frieze. Spanning the architrave below is an inscription, which reads

With malice toward none, with charity for all.

Between each pair of columns inset in the wall surface are square windows with a diagonal stone grill-like insert. This pattern allows natural light while simultaneously providing security for the cabin inside. These windows are shadowed by a portico with a coffered ceiling. Each coffer features a floral rosette. The aluminum-framed glass doors and transom are a later alteration to the original masonry opening. The original bronze doors are extant and are behind the glass doors. The doors are decoratively studded in bronze and also have lion's head door knockers and levered handles. Additionally, to either side of the door are inscriptions carved in the wall. The one on the west reads

Let us have faith
That right makes might
And in that faith let us to
The end dare to do our duty
As we understand it.

Cooper Institute
N.Y. Feb. 27,1860

The quotation on the east reads

Stand with anybody
That stands right.
Stand with him while he
Is right and part with him
When he goes wrong.

Peoria Ill. Oct. l6, l854

An additional quotation is inscribed on the south facade in the pediment above the portico. It reads

Here
Over the log cabin where Abraham Lincoln was born
Destined to preserve the Union
and free the slave
A grateful people have dedicated
this memorial
To unity peace and brotherhood
among these States.

In the southeast corner of the south facade in the first masonry course there is a corner dedication stone which reads

February Twelfth 1909.

North Elevation

The north facade is characterized by its relative austerity when compared to the other facades. It features five recessed windows at the same height and relative location as the windows on the south fa-

cade. Above the windows is a slightly recessed panel, which extends to the cumulative width of the windows. Though possibly designed to include an inscription, the panel provides a transition between the windows and the continuous crenelated cornice. Below the windows are similarly recessed vertical panels, two on either side of the doorway. In the panels adjacent to the doorway there are bronze plaques mounted on the face of the masonry. The plaque to the east reads

This Memorial erected
By Popular Subscription through
the Lincoln Farm Association

Joseph W. Polk President
Robert J. Collier Vice President
And Chairman Of The Executive
Committee
Clarence H. MacKay Treasurer
Richard Lloyd Jones Secretary
John Russell Pope Architect

Cornerstone Laid By President
Roosevelt February 12th, 1909
Dedicated By President Taft
November 9th, 1911

The similar plaque to the west of the doorway lists the Board of Trustees whose names include William H. Taft, Samuel L. Clemens, James Cardinal Gibbons, and Augustus St. Gaudens. The doorway itself is like the one in the south facade. It also features an aluminum-framed glass door with transom set to the exterior of the masonry opening and two original paneled bronze doors set to the interior of the masonry opening. The doors are decoratively studded in bronze and have lion's head door knockers and levered handles. There are three maintenance-related original features on the west side of this facade: stair rungs incorporated into the masonry wall to access the roof, a concealed stairway to the basement which runs parallel to the north facade, and, opposite this, a coal chute to supply the original furnace. The stairway has been modified from its original design, which included a skylight of glass-block pavers.

East & West Elevations

The east and west elevations are identical in that they feature a four-columned portico centered in the facade. The columns are engaged, and between them are tall inset windows. These windows are twice the height of those on the north and south elevations and are characterized by the same diagonal stone design. To either side of the portico are copper downspouts with brackets of simple decoration. The downspouts pass through the continuous crenelated cornice and then pierce the parapet wall above.

Foundation

Reinforced concrete foundation walls and footings support the masonry-bearing exterior walls.

Structural

Two deep steel reinforced concrete beams which bear on the north and south exterior walls support the roof and frame the opening for the skylight above. The ceiling is suspended from these beams by steel tie bars.

Windows

Steel awning windows are set inside the stone openings. Each window is recessed

behind a decorative stone pattern based on Roman grill work. The opening is divided into four squares, which are further divided diagonally. For taller windows the pattern is repeated.

Roof

The parapet wall is capped with a single stone band which runs continuously around the building except where a low angle pediment rises on the south elevation. At the north elevation to the west of center, a chimney protrudes above the parapet wall. Located to the east of the chimney is the access hatch, which leads from the roof to the interstitial space above the ceiling. The bi-axially-centered skylight interrupts this space and the roof. The original opening was constructed with glass block. The present greenhouse-style skylight is built over the original one-foot curb and is enclosed with wired glass in a copper frame. The center ridge runs from east to west. Beneath this enclosure is the original glass block membrane. The roofing itself has been altered and presently features a new membrane roof on top of the earlier material.

Floor Plan

The interior of the building is a large rectangular room used for the exhibition of the traditional Lincoln birth home. The interior measures approximately 35 feet by 48 feet and houses the cabin and some free standing furnishings.

Stairways

There are no interior stairways, but there are two exterior stairways. One is a poured concrete stair, which leads to the basement along the north elevation. The other is a metal rung stair, which is attached to the north face of the building and accesses the roof.

Flooring

The flooring has a nine-inch marble perimeter border. Inside the perimeter border there is brick set in a herring bone pattern about six feet wide in each direction. The brick is bordered to the inside by another marble inlay, this one ten inches wide. It serves to provide a transition between the brick paving and the exposed aggregate concrete that comprises the remainder of the floor toward the center and serves as the bed on which the log structure is set. Additionally, there are eight diamond-shaped marble inlays, which are sixteen inches square. They are centered in each corner of the brick paving and at the midpoints in front of each wall.

Wall & Ceiling Finishes

The interior of the memorial building is characterized by classical details, though there are elements contemporary with the construction era. The walls are finished with a continuous marble-based wainscot and chair rail above which the wall surface and details are plaster. Surrounding the windows at the east and west is a classical trim, which provides a continuous banding around the finished openings. This pattern is continued on the north and south walls. This banding, though comprised of classical details, is contemporary in design. Toward the top of the wall is a simple classical picture rail molding. Several inches above that, the classical crown molding begins and provides a transition to the coffered ceiling squares. The coffer pattern is four by six around the perimeter with a skylight

in the center. The coffer pattern is further defined by darker shaded banding. Centered in each coffer is a plaster rosette. The skylight lens is set on a copper grid and is composed of corrugated panes. The twenty-one-square grid is arranged three squares by seven.

Doors

Beyond the tall one-story Doric portico are two bronze-paneled doors which figure prominently in the axiality of the building design. This entrance is matched at the north elevation with another central double door. These doors are dominant features of both the interior walls and exterior facades. Above the doorways are classically detailed lintels. The paneled doors are set at the inside of the thresholds, while more recent aluminum entrance doors are set to the outside. Additional descriptions are in the elevation sections above.

Hardware

In addition to the hardware on the doors described in the elevations section above, the only additional hardware is bronze chain fencing with bronze stanchions which surrounds the cabin. The barrier is an original feature of the design and is set on the interior marble border.

Sources of Information

Adolf K. Placzek. *Macmillan Encyclopedia of Architects*. Vol. 3. London: The Free Press, 1982. p450-451.

Gloria Peterson, *An Administrative History of Abraham Lincoln Birthplace National Historic Site*, National Park Service, 1968.

Abraham Lincoln Birthplace National Historic Site. Scrapbooks and files located at park in Hodgenville, Kentucky.

Collier's Magazine, February 10, 1906, February 15, 1908, February 13, 1909.

Ann Huston, KY-95-A, HABS Documentation, Library of Congress, Prints and Photograph Division, Washington, D.C.

Requirements for Treatment

As the Memorial Building was constructed with the dedicated purpose to house the Lincoln cabin, the historic structure should continue its present use as a display for the traditional birthplace cabin, without the incorporation of additional visitor services, offices, concessions, or any other tangential programmatic use.

The National Park Service Cultural Resources Management Guideline (DO-28) requires planning for the protection of cultural resources "whether or not they relate to the specific authorizing legislation or interpretive programs of the parks in which they lie." Therefore, the memorial building must be understood in its own cultural context and managed in light of its own values so that it may be preserved unimpaired for the enjoyment of present and future generations.[1]

1. *"Cultural Resource Management Guidelines," (1997), p. 1.*

Section 106 of the National Historic Preservation Act (NHPA) also mandates that federal agencies, including the National Park Service, take into account the effects of their actions on properties listed or eligible for listing in the National Register and give the Advisory Council on Historic Preservation a reasonable opportunity to comment.

NHPA regulations (36 CFR 800.10) mandate special requirements for protecting National Historic Landmarks. Section 110(f) of the Act requires that the Agency Official, to the maximum extent possible, undertake such planning and actions as may be necessary to minimize harm to any National Historic Landmark that may be directly and adversely affected by an undertaking. Examples of adverse effects include, but are not limited to:

- Physical destruction of or damage to all or part of the property;
- Alteration of a property, including restoration, rehabilitation, repair, maintenance, stabilization, hazardous material remediation and provision of handicapped access, that are not consistent with the Secretary's Standards for the Treatment of Historic Properties (36 CFR part 68) and applicable guidelines;
- Removal of the property from its historic location;
- Change of the character of the property's use or of physical features within the property's setting that contribute to its historic significance;
- Introduction of visual, atmospheric or audible elements that diminish the integrity of the property's significant historic features;
- Neglect of a property which causes its deterioration; and
- Transfer, lease, or sale of property out of Federal ownership or control without adequate and legally enforceable restrictions or conditions to ensure long-term preservation of the property's historic significance.

ADA COMPLIANCE

In 1991 the building's north (rear) entrance was altered to meet guidelines in compliance with the Americans with Disabilities Act. This involved the installation of an automatic door, concrete ramp, and suitable hand rails on this entrance to the Memorial. We recommend removal of both the front and rear aluminum entrance units and replacement with a total glass system. The new doors for the rear entrance would also be automated, but we suggest transferring the automatic door button from its placement on the historic bronze door to another location, preferably a free standing or temporary post.

LIGHTING CONDITIONS

Previous alterations to the Memorial's lighting conditions, made at the expense of the building's historic character, should be removed in favor of measures which are less obtrusive. In order to maintain adequate lighting levels, florescent or, preferably, museum quality spot lights should be mounted along the interstitial walls, above the copper framed rooflight, and allowed to adjust for overcast and evening lighting conditions.

ENTRANCE DOOR ADJUSTMENTS

Any required door labels, including but not limited to: handicap accessibility, hours of operation, or rules and regulations, will be coordinated with the manu-

facturer of the new door product so as to achieve a solution which is as transparent and uncluttered as possible. Most manufacturers have incorporated such requirements into their designs, and it may be possible for the text to be directly engraved into the glass.

Alternatives for Treatment

In the broadest sense, three alternative approaches to the treatment of the Abraham Lincoln Birthplace Memorial Building can be identified: preservation, rehabilitation, and restoration. Each of these approaches is fundamentally different, and each will have a different impact on the existing historic building.

The first alternative, preservation, would seek simply to repair existing material and maintain the existing character of the building, making those repairs and alterations that are necessary (1) to secure the building and its contents against further deterioration, (2) to eliminate threats to life safety, and (3) to make improvements to the building's fire detection system. A preservation approach would retain the maximum amount of existing historic material and would require the least investment of Park resources.

The second alternative, rehabilitation, would subsume the concerns of the first but would also seek to make improvements and/or alterations that would increase the

building's utility to Park visitors and others who use the building. These would include improvements for handicap accessibility and replacement of building systems and/or equipment that may be antiquated but which are not hazardous to the building, its contents, or its occupants. Since this approach would focus on the building's function and not its design, the building's existing character and features would be mostly preserved.

The third alternative, restoration, would seek to return the building to its historic appearance in the year 1911.

ENTRANCE DOORS

If it is not financially possible to replace both aluminum entrance units, the rear handicap accessible unit may stay intact. Although such a difference would be undesirable, at least the front entrance, which is the focal point of the visitor's ascent to the Memorial, would have a minimal total glass entrance system and not obstruct the original threshold.

U-V PROTECTION

All subsequent modification to the glazing in the Memorial Building, whether as a curatorial or environmental initiative, should seek to choose products which affect the historic character in the least possible way. This includes avoiding tinted and reflective surfaces, impositions on the original door and window units, and the concealment of any opening which is part of the original Pope design.

Ultimate Treatment & Use

The Historic Structure Report seeks to maintain the Memorial Building's present use as a commemorative structure. With the incorporation of the Lincoln Farm Association in 1906, a preservation initiative was begun which advocated the then-contemporary philosophy of containing a historic object (the Traditional Lincoln Birthplace Cabin) within another structure. Since its dedication in 1911, the Memorial Building has assumed a significance which is irreversibly linked to its site and the contents contained within. In light of this interdependence, the report has recognized the difficulty in finding a balance among concerns for the Memorial's architectural integrity, securing access for visitors, and protecting the cabin. With a renewed attention to the importance of the Memorial Building, the report reveals the potential to establish a restored condition, in compliance with safety and curatorial requirements.

EXTERIOR PROVISIONS

Concern should first be placed on insuring that the build-

ing and its contents are reasonably protected from environmental conditions. Previous efforts by local contractors to secure the roof have produced sub-standard results. Deficiencies include loose and open seams, and areas of detached flashing. The faulty condition of the skylight is noted in historical architect David Ates's inspection, four years following a repair project. As the roof is not visible to the public and since the skylight is not presently used, suggestions have been made to eliminate the element completely. Today, unfortunately, the skylight does not affect the visitor's experience of the Memorial, a consequence of alterations made in 1959. To continue to disenable the skylight would severely compromise the architectural significance of this building. The rooftop lighting source was an integral component of the initial design, the inspiration for which can be seen in museum and gallery designs from the pre-WWII era. As a case of precedence, the National Gallery of Art in Washington, D.C. (John Russel Pope, 1933) has completed a project to restore its gallery skylights, which are very similar in detail to the greenhouse-type system on the Memorial Building. This solution involves a three-pane glass panel which reduces heat loss and light intensity, while blocking ultraviolet rays. In light of the roof's limited visibility, the introduction of non-historic materials may be acceptable, as long as there is no adverse affect to the historic condition of the building's interior.

INTERIOR PROVISIONS

The cabin will have to be protected during any work to the skylight. This would be especially important during the removal of the plenum, which would probably involve a scaffolding system. Once the roof is stabilized and the skylight is restored, efforts should be focused on removing non-historic elements and restoring material surfaces to the 1909-1911 historic period.

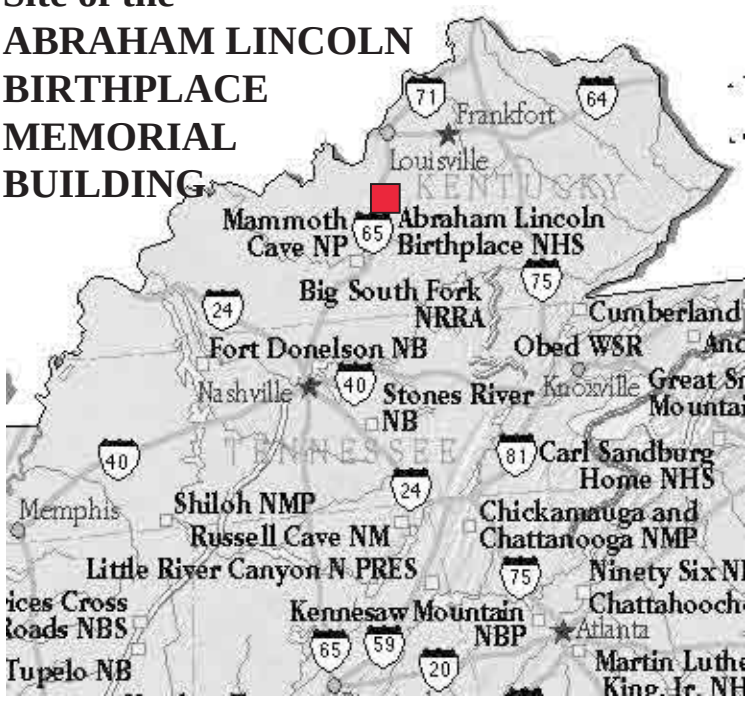
This phase of restoration concerns those details which, instead of being structurally essential, affect the experience of a building conceived at the turn of the century. These include removing the aluminum entrance unit and renovating the processional bronze doors, removing of glass tinting, restoring plaster profile, and repainting walls. The next phase of activity involves furnishings connected with the building that are in need of reconstruction or restoration. These include reconstructing the four interior marble plaques, restoring the engraved text on the exterior granite panels, removing the simulated clay floor in cabin and resurfacing with concrete, and removing or redesigning the ranger desk.

FUTURE PROVISIONS

The Historic Structure Report, through its guidelines, seeks to initiate a new era of dedication, emphasizing accurate and sensitive renovation. Such a focus is merited by the building's status as a National Landmark and, furthermore, a project from the oeuvre of a significant American architect. Since the building's importance extends beyond the region, all future work should represent a commitment to the highest standards.

Maps & Drawings

Site of the ABRAHAM LINCOLN BIRTHPLACE MEMORIAL BUILDING

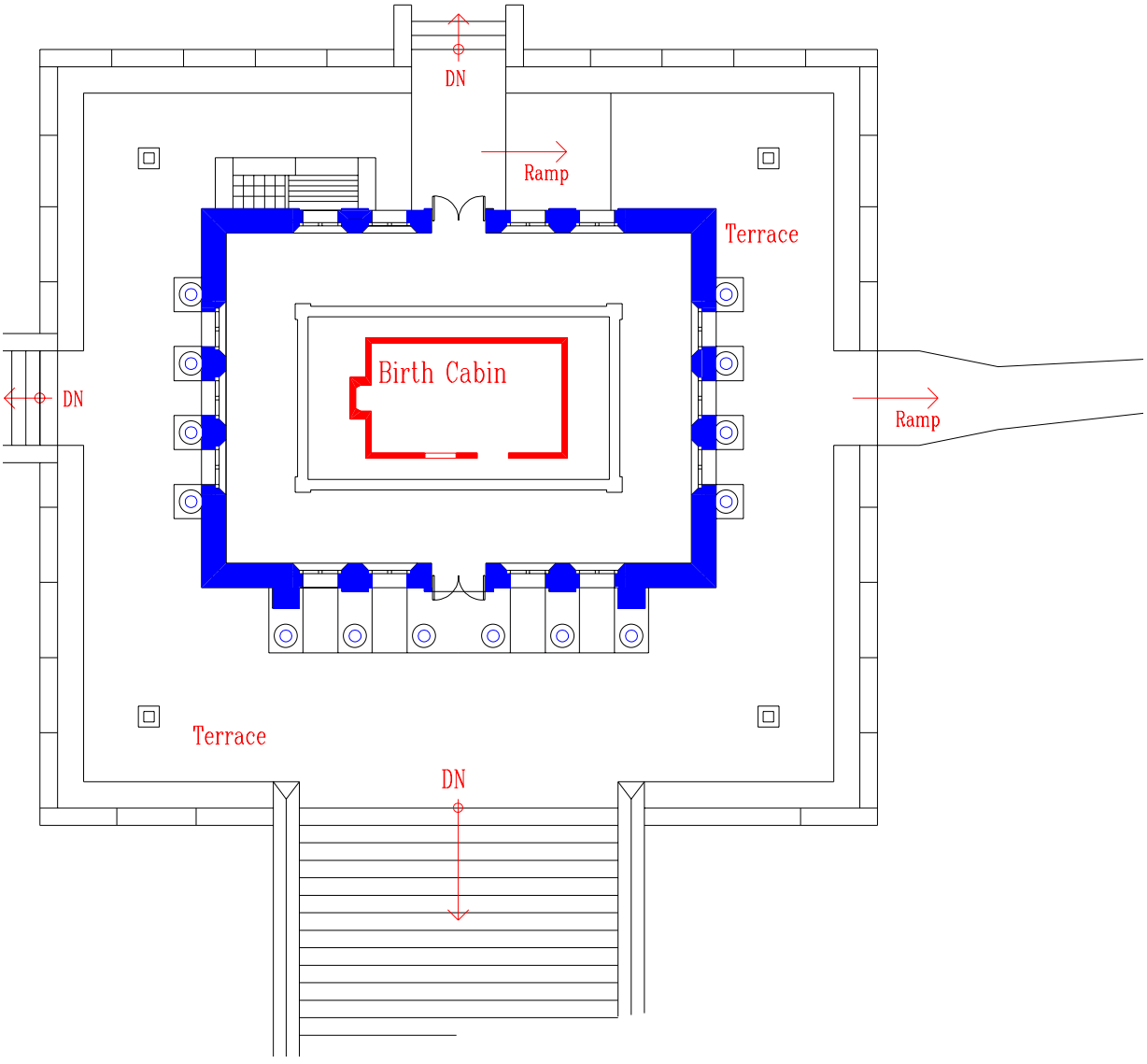


Abraham Lincoln Birthplace National Historic Site

Hodgenville, Kentucky

0 1 5 10 20

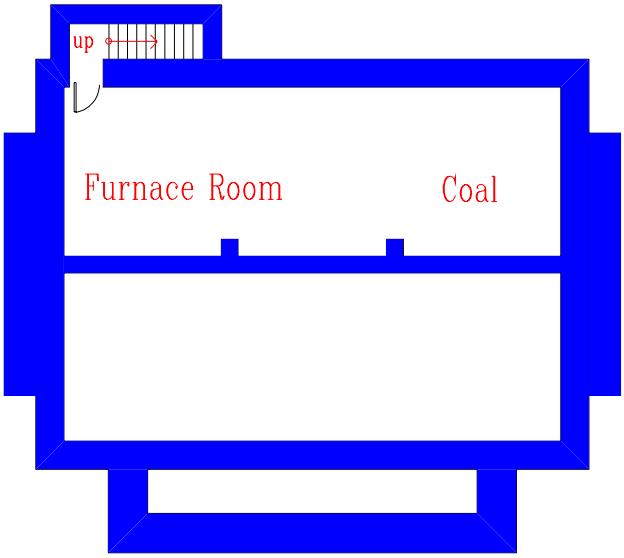
BIRTH CABIN

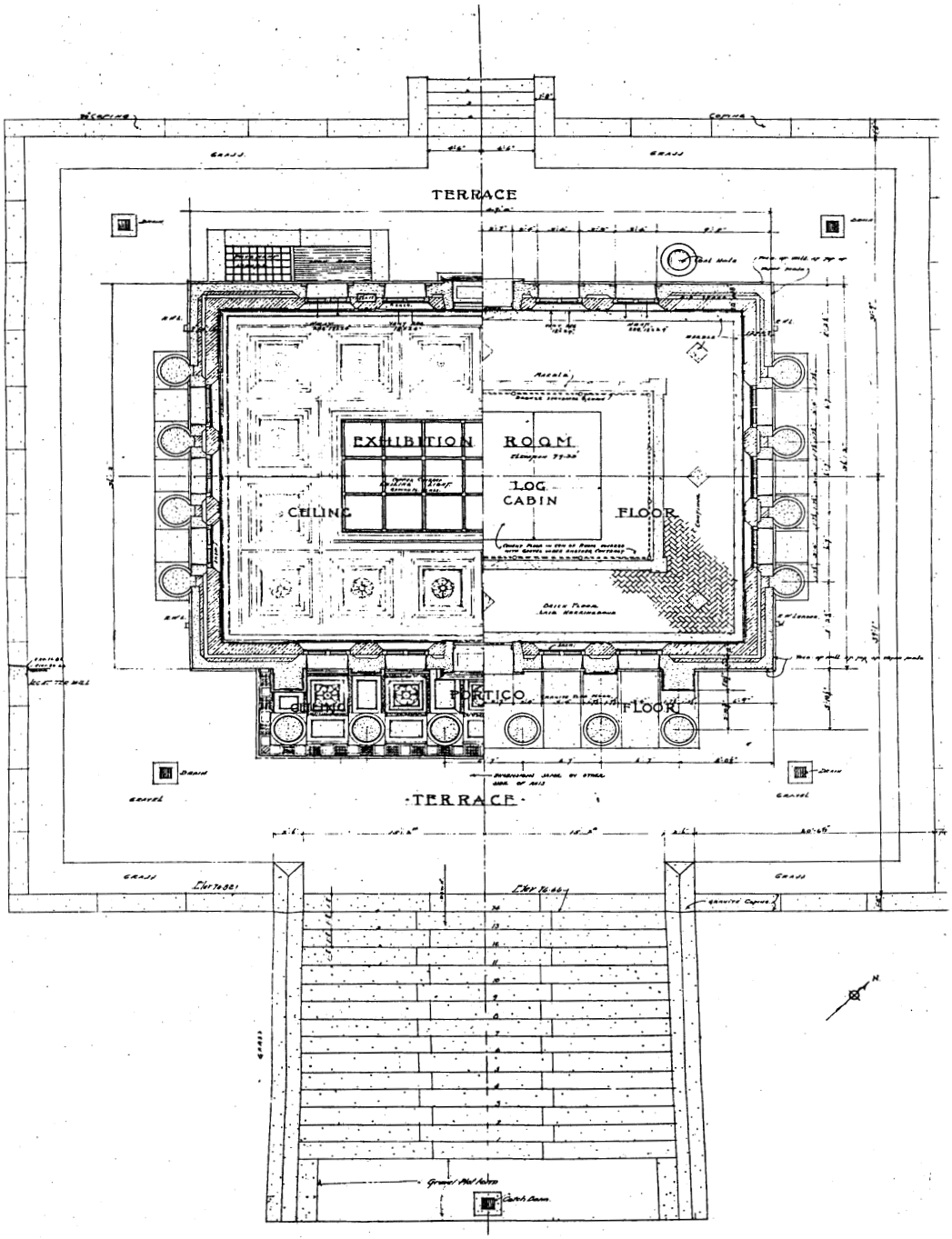


Abraham Lincoln Birthplace National Historic Site

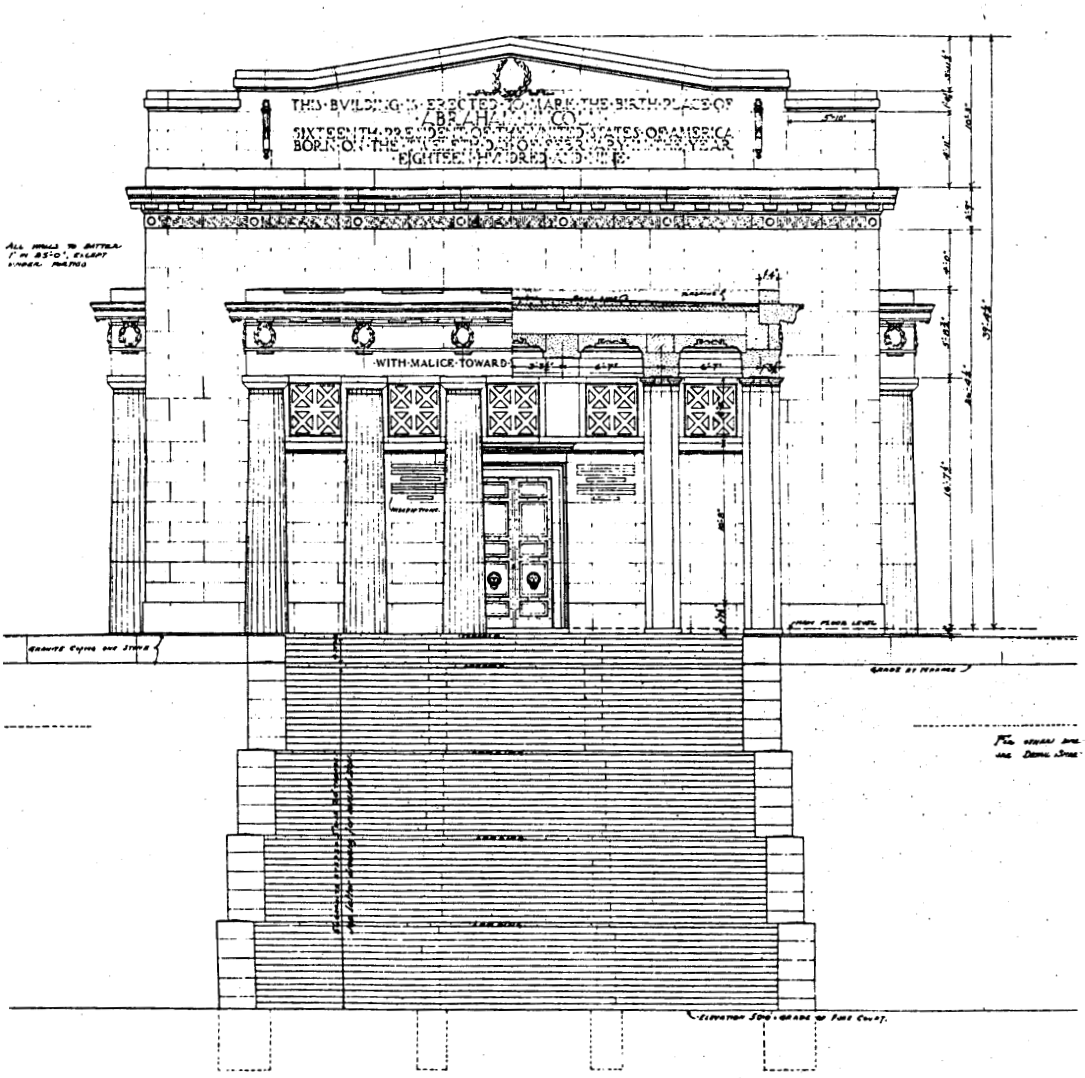
Hodgenville, Kentucky

MEMORIAL BUILDING
BASEMENT PLAN





MAIN FLOOR PLAN



ELEVATION

APPENDIX B

Photographic Documentation

Figure 1 Abraham Lincoln Birthplace National Historic Site, view to northwest from base of memorial stairs; Memorial Building in background. Photographed in 1984. National Park Service, Southeast Region Cultural Resources library.

Figure 2 Abraham Lincoln Birthplace National Historic Site, view to northwest from third tier of memorial stairs; south elevation of Memorial Building. Photographed in 1984. National Park Service, Southeast Region Cultural Resources library.

Figure 3 Abraham Lincoln Birthplace National Historic Site, east elevation of Memorial Building. Photographed in 1984. National Park Service, Southeast Region Cultural Resources library.

Figure 4 Abraham Lincoln Birthplace National Historic Site, west elevation of Memorial Building. Photographed in 1984. National Park Service, Southeast Region Cultural Resources library.

Figure 5 Abraham Lincoln Birthplace National Historic Site, south elevation of Memorial Building; with detail of frieze and pediment. Photographed in 1984. National Park Service, Southeast Region Cultural Resources library.

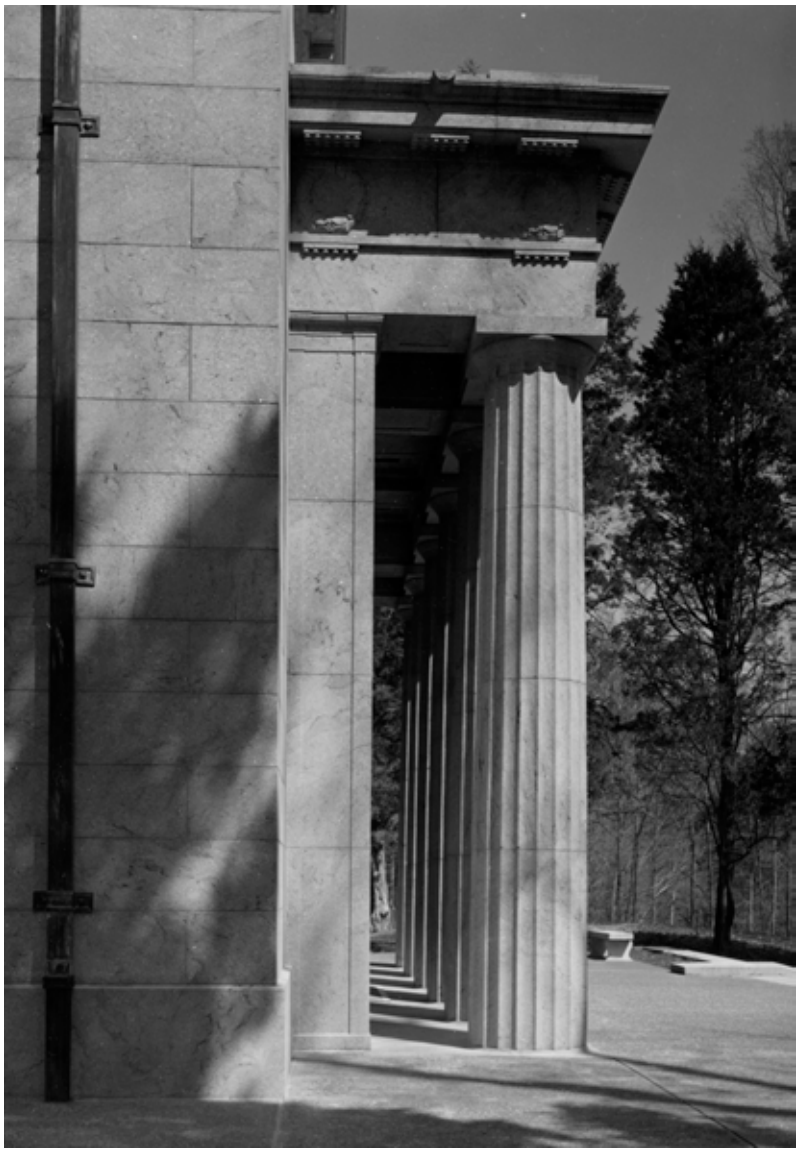


Figure 6 Abraham Lincoln Birthplace National Historic Site, west elevation of Memorial Building portico. Photographed in 1984. National Park Service, Southeast Region Cultural Resources library.

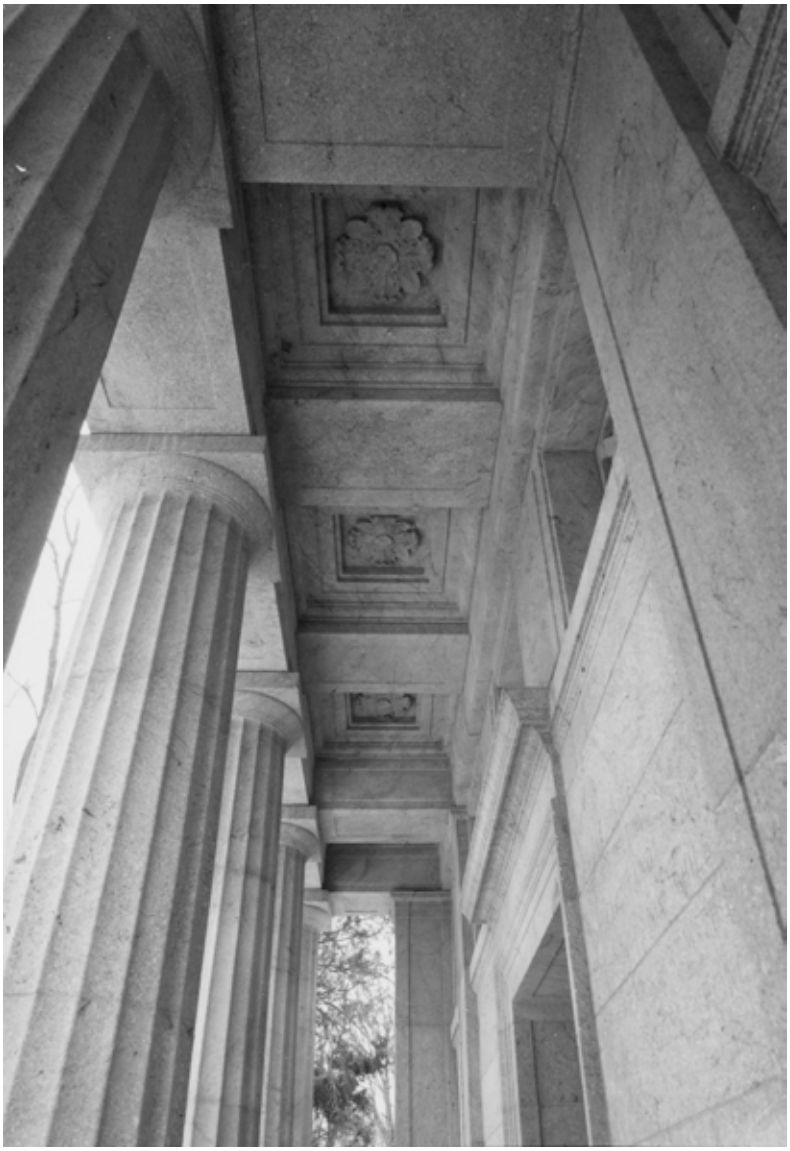


Figure 7 Abraham Lincoln Birthplace National Historic Site, coffered ceiling of Memorial Building portico. Photographed in 1984. National Park Service, Southeast Region Cultural Resources library.

Figure 8 Abraham Lincoln Birthplace National Historic Site, bronze doors at south entrance to Memorial Building. Photographed in 1984. National Park Service, Southeast Region Cultural Resources library.

Figure 9 Abraham Lincoln Birthplace National Historic Site, south wall of Memorial Building interior. Photographed in 1984. National Park Service, Southeast Region Cultural Resources library.

Figure 10 Abraham Lincoln Birthplace National Historic Site, east wall of Memorial Building interior. Photographed in 1984. National Park Service, Southeast Region Cultural Resources library.

Figure 11 Abraham Lincoln Birthplace National Historic Site, north wall of Memorial Building interior. Photographed in 1984. National Park Service, Southeast Region Cultural Resources library.

Figure 12 Abraham Lincoln Birthplace National Historic Site, west wall of Memorial Building interior. Photographed in 1984. National Park Service, Southeast Region Cultural Resources library.

Figure 13 Abraham Lincoln Birthplace National Historic Site, detail of ceiling rosettes, Memorial Building interior. Photographed in 1984. National Park Service, Southeast Region Cultural Resources library.

Figure 14 Abraham Lincoln Birthplace National Historic Site, southeast corner of traditional Lincoln birthplace cabin. Photographed in 1984. National Park Service, Southeast Region Cultural Resources library.

Figure 15 Abraham Lincoln Birthplace National Historic Site, southwest corner of traditional Lincoln birthplace cabin. Photographed in 1984. National Park Service, Southeast Region Cultural Resources library.

Figure 16 Abraham Lincoln Birthplace National Historic Site, northwest corner of traditional Lincoln birthplace cabin. Photographed in 1984. National Park Service, Southeast Region Cultural Resources library.

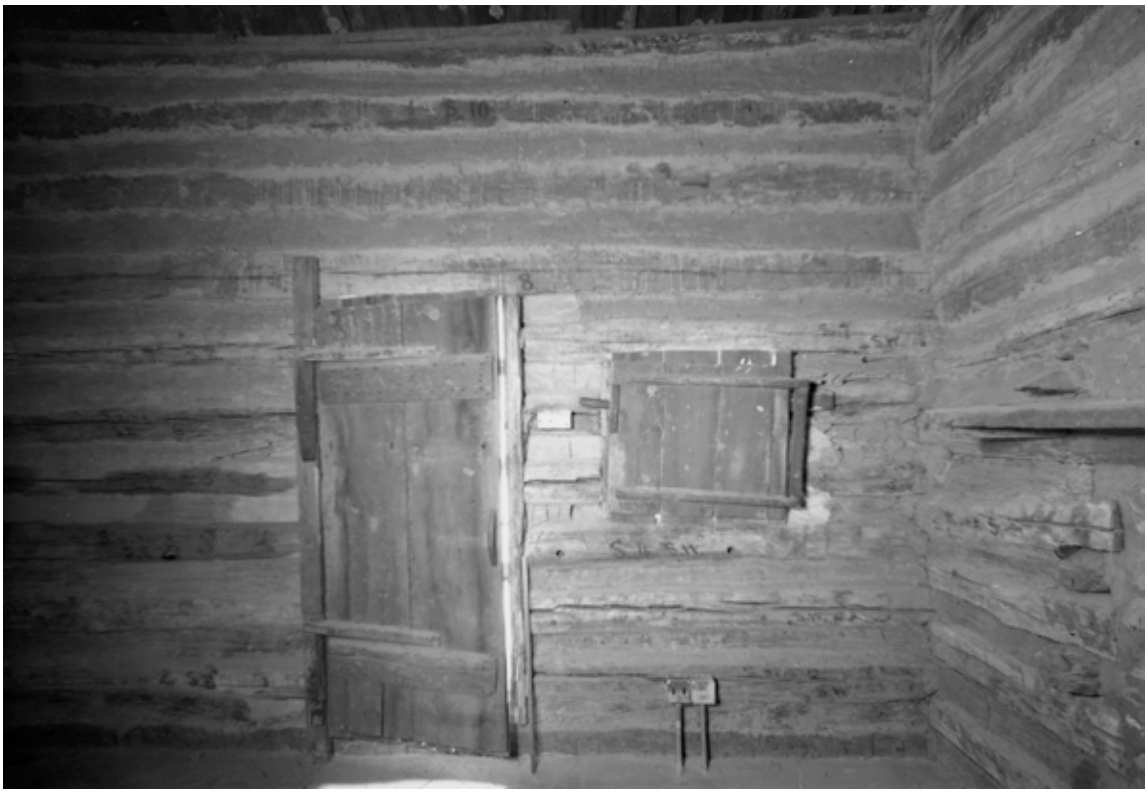


Figure 17 Abraham Lincoln Birthplace National Historic Site, interior south wall of traditional Lincoln birthplace cabin. Photographed in 1984. National Park Service, Southeast Region Cultural Resources library.

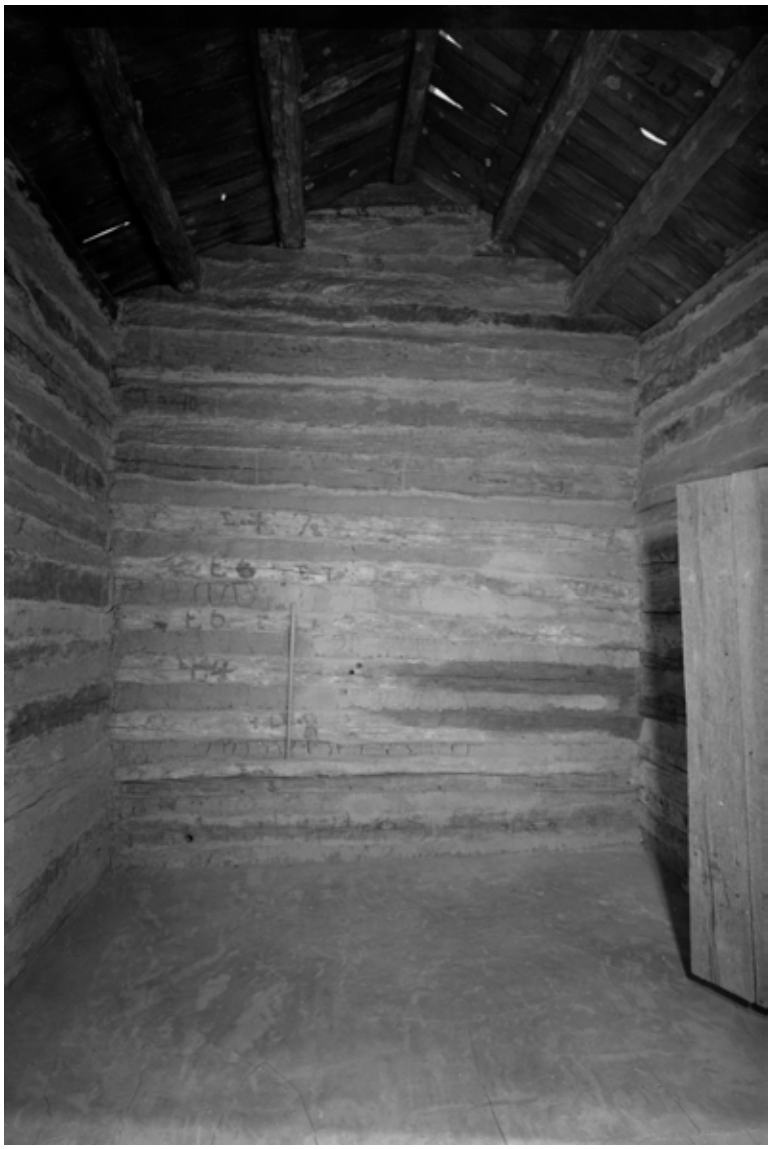


Figure 18 Abraham Lincoln Birthplace National Historic Site, interior east wall of traditional Lincoln birthplace cabin. Photographed in 1984. National Park Service, Southeast Region Cultural Resources library.

Figure 19 Abraham Lincoln Birthplace National Historic Site, interior west wall of traditional Lincoln birthplace cabin. Photographed in 1984. National Park Service, Southeast Region Cultural Resources library.

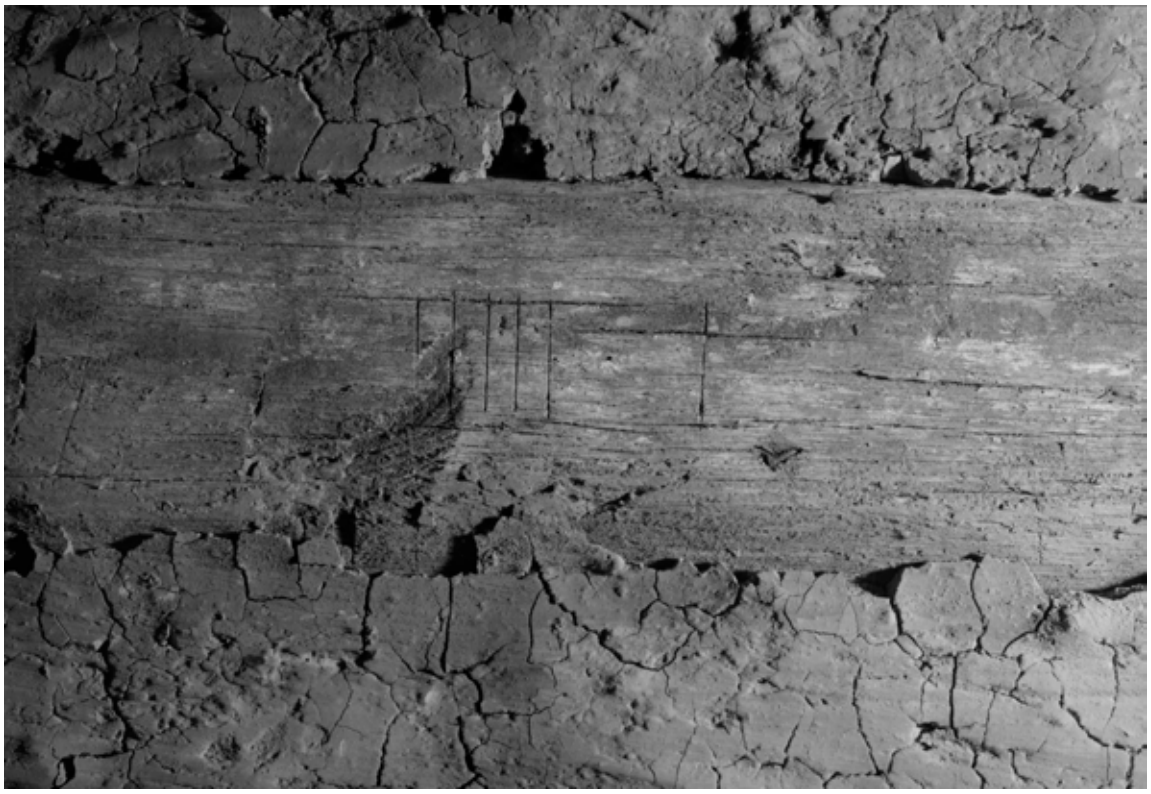


Figure 20 Abraham Lincoln Birthplace National Historic Site, detail of numbered log and clay chinking, traditional Lincoln birthplace cabin. Photographed in 1984. National Park Service, Southeast Region Cultural Resources library.

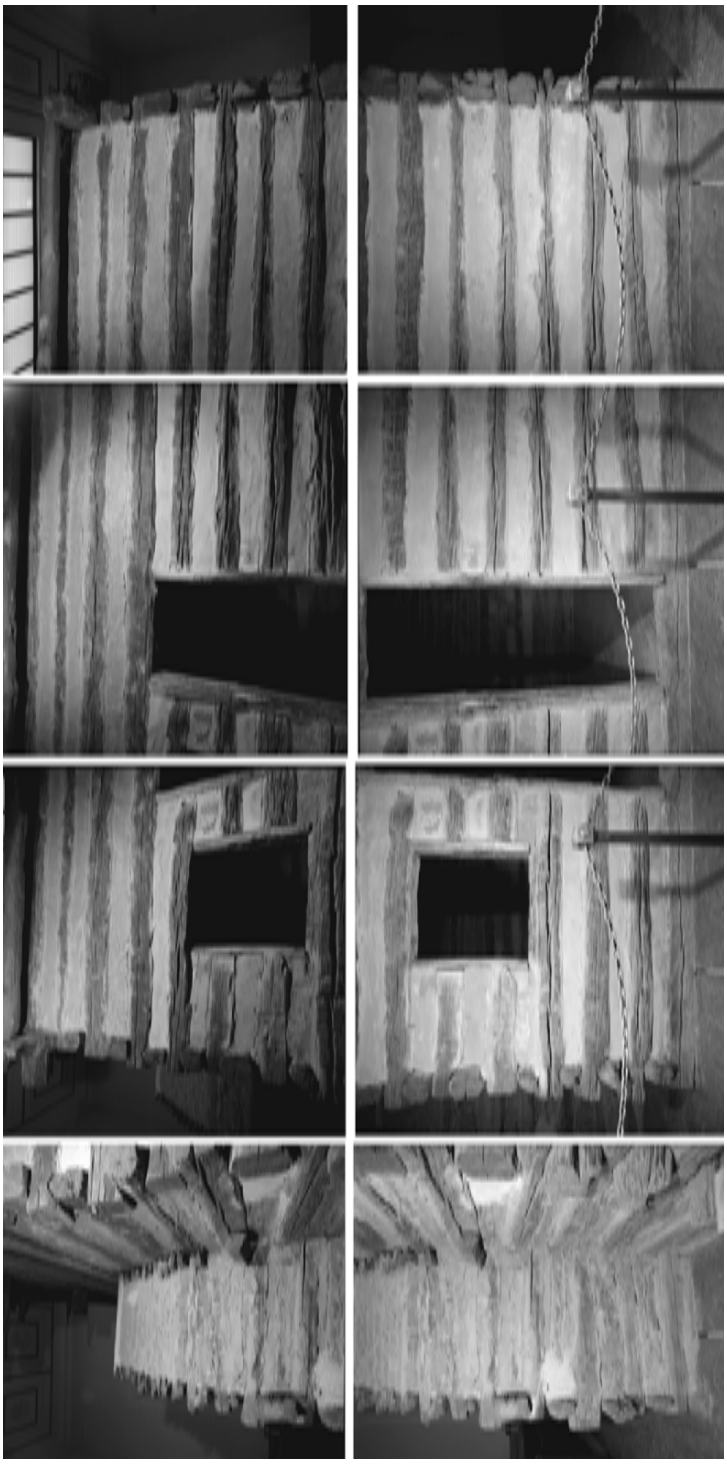


Figure 21 Abraham Lincoln Birthplace National Historic Site, condition of exterior south wall of traditional Lincoln birthplace cabin. Photographs taken June 2, 2000. National Park Service, Southeast Region Cultural Resources library.

Figure 22 Abraham Lincoln Birthplace National Historic Site, condition of exterior north wall of traditional Lincoln birthplace cabin. Photographs taken June 2, 2000. National Park Service, Southeast Region Cultural Resources library.

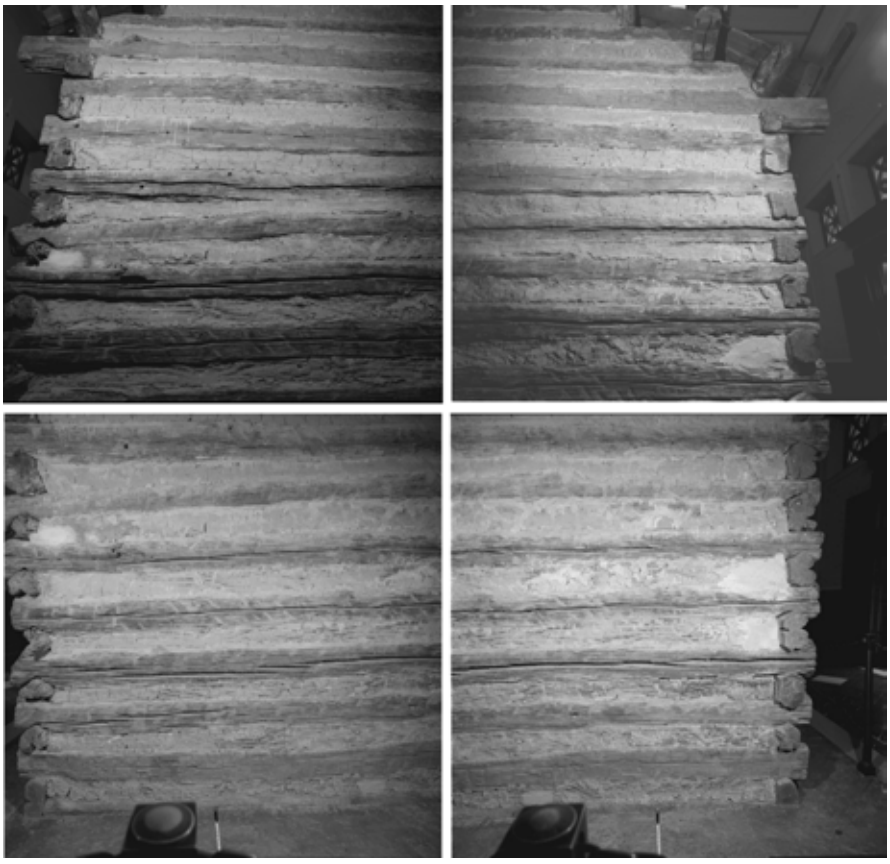


Figure 23 Abraham Lincoln Birthplace National Historic Site, condition of exterior east wall of traditional Lincoln birthplace cabin. Photographs taken June 2, 2000. National Park Service, Southeast Region Cultural Resources library.

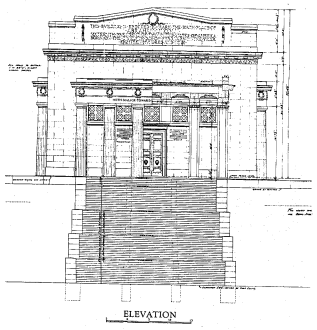
Figure 24 Abraham Lincoln Birthplace National Historic Site, condition of exterior west wall of traditional Lincoln birthplace cabin. Photographs taken June 2, 2000. National Park Service, Southeast Region Cultural Resources library.

APPENDIX C

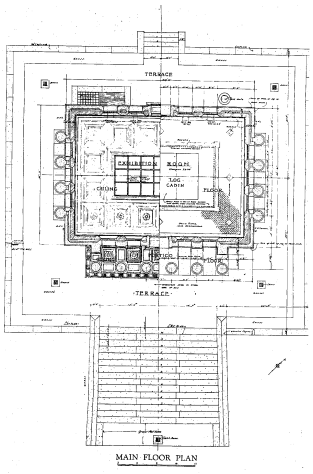
Feature Inventory & Condition Assessment - Memorial Building

EXTERIOR 4110 Exterior Wall Surface/cover: Granite

Milford Pink Granite



FEATURE DESCRIPTION: Granite: dressed ashlar, Stony Creek granite (Milford Pink) from Milford, MA. Stone courses are 16" vertically with continuous bed joints (3/16", beaded) and horizontal joints varying between 36" and 55".
FEATURE NOTES: Granite wall parapet approx. 2' above roof (320 SF). Inscriptions appear over front columns, in pediment & to either side of front entrance.
FEATURE CONDITION: 5980.0 SF - GOOD/ 40 SF - FAIR
HISTORIC RATING: H
TOTAL INVENTORY: 6020.0 SF
PRIORITY: SERIOUS
DEFICIENCY: Dirt and mildew buildup on cornice at north elevation. Rusting from the metal roof ladder on the North side has stained the surrounding stone.
RECOMMENDATION: Clean dirt and mildew with water, detergent and soft bristle brush (check mortar joint prior to cleaning). Remove rust by applying a poultice materical to the affected area to draw the stain out of the stone.



Granite wall parapet (Dirt and mildew buildup on cornice)

Rusting from the metal roof ladder

EXTERIOR ENVELOPE

Walls - Ceilings - Floors - Windows - Doors - Finishes

EXTERIOR 4110 Ext. Wall Surface/cover: Granite

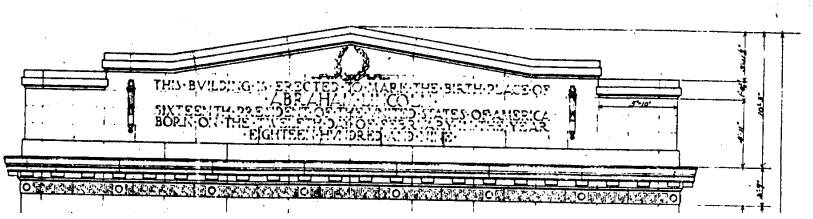
FEATURE DESCRIPTION: Granite: dressed ashlar, Stony Creek granite (Milford Pink) from Milford, MA**.** Stone courses are 16" vertical with continuous bead joints (3/16", beaded) and horizontal joints varying between 36" and 55".
FEATURE NOTES: Granite wall parapet approx. 2' above roof (320 SF). Inscriptions appear in pediment over front columns, and on panels east and west of the entrance.
FEATURE CONDITION: 5920 SF - GOOD/ 100 SF - POOR
HISTORIC RATING: H
TOTAL INVENTORY: 6020 SF
PRIORITY: SERIOUS/HISTORICAL
DEFICIENCY: Rusting from the metal roof ladder on the North side has stained the surrounding stone. Possible sandblasting has obscured historic inscriptions flanking entrance.
RECOMMENDATION: Clean dirt and mildew with water, detergent and soft bristle brush (check mortar joint prior to cleaning). Remove rust by applying a poultice material to the affected area to draw the stain out of the stone. Consult conservator on most appropriate means to restore the engraved text.
COST ESTIMATE *for combined cleaning of 4110 & 4113*: Materials: $200 Labor/Equipment: $800 Total: $1000

EXTERIOR 4111 Ext. Wall Structure: Granite Ashlar

FEATURE DESCRIPTION: Granite ashlar, approx. 8" thick, on 4" masonry building tile (see **4211 Int. Wall Structure**). The walls are approx. 35' tall and 30" thick overall (32" at base).
FEATURE NOTES: The thickness of the various wall components could not be measured directly, but it appears the exterior stone is 16" thick and the interior masonry is 8" thick (plus 2" finish) with a 4" air space in between.
FEATURE CONDITION: GOOD
HISTORIC RATING: H
TOTAL INVENTORY: 5700.0 SF

EXTERIOR 4113 Exterior Wall Trim: Granite

FEATURE DESCRIPTION: Smooth granite base course 24" highand projects 2" from stone wall above./ large granite, denticulated cornice with patterned frieze, 27' above grade
FEATURE NOTES: Dirt and mildew buildup on cornice at north elevation
FEATURE CONDITION: GOOD (250 LF); FAIR (90 LF)
HISTORIC RATING: H
TOTAL INVENTORY: 340 LF



large granite, denticulated cornice with patterned frieze, 27' above grade (above)

Smooth granite base course 24" highand projects 2" from stone wall above (below)

Cornice and Frieze from 26’ to 30’ above grade (above)

Dirt and mildew buildup on cornice at north elevation (above and below)

EXTERIOR 4114 Ext. Wall Ornament: Bronze

FEATURE DESCRIPTION: North Elevation - In the panels on either side of the doorway there are bronze plaques mounted on the face of the masonry. The plaque which is east of the doorway provides information about the erection team and the plaque to the west presents the Board of Trustees.
FEATURE NOTES:
FEATURE CONDITION: FAIR
HISTORIC RATING: H
TOTAL INVENTORY: 2 EA
PRIORITY: MINOR
DEFICIENCY: These two plaques are now black with corrosion showing in a few areas.
RECOMMENDATION: Cleaned and restore by a metals conservator. Special care should be taken to preserve the original texture of the metal ground behind the lettering.

East plaque (Erection Team)

Detail view (Erection Team)

West plaque (Board of Trustees)

EXTERIOR	4113	Ext. Wall Trim:	Granite

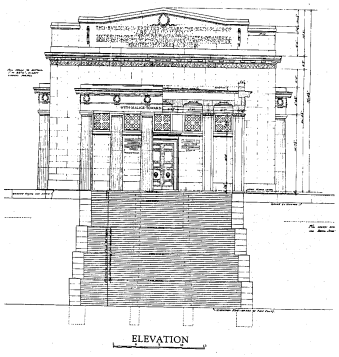
FEATURE DESCRIPTION: Smooth granite base course 24" high and projects 2" from stone wall, above large granite, denticulated cornice with patterned frieze, 27' above grade.
FEATURE NOTES:
FEATURE CONDITION: GOOD (250 LF); FAIR (90 LF)
HISTORIC RATING: H
TOTAL INVENTORY: 340 LF
PRIORITY: MINOR
DEFICIENCY: Dirt and mildew buildup on cornice at north elevation.
RECOMMENDATION: Clean with detergent and soft bristle brush (check mortar joint prior to cleaning)
COST ESTIMATE *for combined cleaning of 4110 & 4113*: Materials: $200 Labor/Equipment: $800 Total: $1000

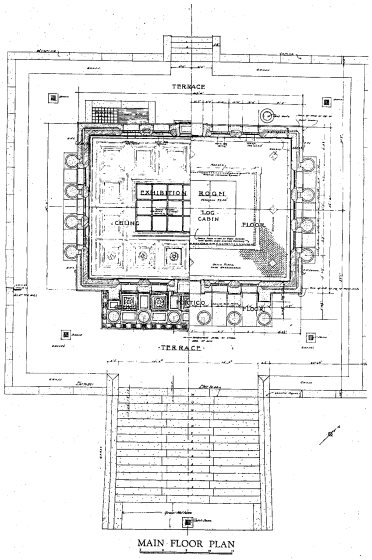
EXTERIOR	4114	Ext. Wall Ornament:	Bronze

FEATURE DESCRIPTION: North Elevation - In the panels on either side of the doorway there are bronze plaques mounted on the face of the masonry. The plaque which is east of the doorway provides information about the erection team and the plaque to the west presents the Board of Trustees.
FEATURE NOTES: 2 each
FEATURE CONDITION: POOR
HISTORIC RATING: H
TOTAL INVENTORY: 10 SF
PRIORITY: MINOR
DEFICIENCY: These two plaques are now black, with corrosion showing in a few areas.
RECOMMENDATION: They should be cleaned and restored by a metals conservator. Special care should be taken to preserve the original texture of the metal ground behind the lettering.
COST ESTIMATE: $600

EXTERIOR 4115 Exterior Column/Post: Granite

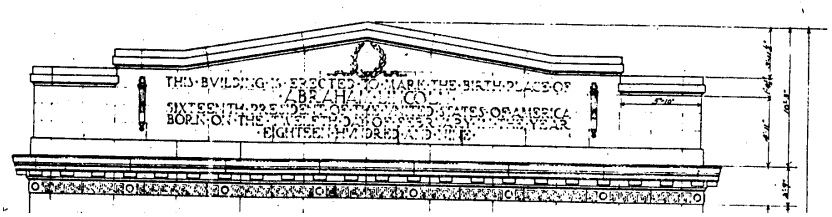
FEATURE DESCRIPTION: Granite, Doric columns (35" diameter, 16.7' tall, with 20 flutes) supporting large entablature with mutules & wreaths/ 6 free standing columns in front. 2 rectangular (29.5" wide by 24" deep) engaged piers on South side. Cornice and frieze from 26' to 30' above grade.
FEATURE NOTES: 8 engaged (three-quarter) columns on East (4) and West (4) facade.
FEATURE CONDITION: GOOD
HISTORIC RATING: H
TOTAL INVENTORY: 16 EA



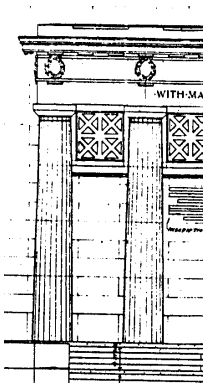


Detail: Fluted Column

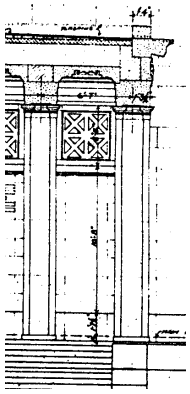
Detail: Column Base



Cornice and Frieze from 26′ to 30′ above grade

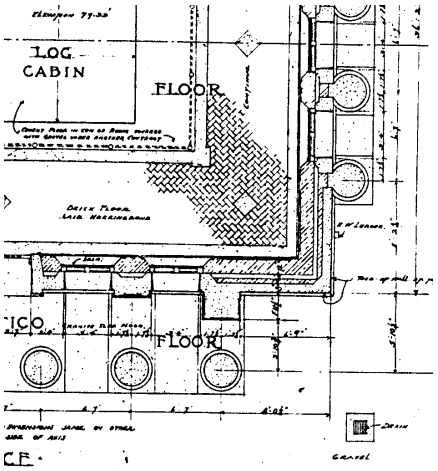


Detail Elevation: Doric Columns (6)



Detail Elevation: Engaged piers (2)

Entablature with Mutules and Wreaths



Plan Detail: Doric Column (6); Rectangular Engaged Piers (2); Engaged (three-quarter) Doric Columns (8)

EXTERIOR	4115	Ext. Column/Post:	Granite

FEATURE DESCRIPTION: Granite, Doric columns (35" diameter, 16.7' tall, with 20 flutes) supporting large entablature with mutules & wreaths. Six free standing columns in front, two rectangular (29.5" wide by 24" deep) engaged piers on South side. Each column/pier is composed of four stone segments. Cornice and frieze from 26' to 30' above grade.
FEATURE NOTES: Four engaged (three-quarter) columns each, on East and West facade.
FEATURE CONDITION: GOOD
HISTORIC RATING: H
TOTAL INVENTORY: 16 EA

EXTERIOR	4121	Ext. Ceiling (Soffit at Portico)	Granite

FEATURE DESCRIPTION: Granite rosettes in square coffering matches motif from interior ceiling. Granite beams frame soffit.
FEATURE NOTES:
FEATURE CONDITION: GOOD
HISTORIC RATING: H
TOTAL INVENTORY: 5 EA.

EXTERIOR	4130	Ext. Floor Surf./cover:	Granite

FEATURE DESCRIPTION: Granite base below columns extends 34" beyond South columns on sides and 89" beyond in front.
FEATURE NOTES: Granite base around basement stair and coal chute on North side.
FEATURE CONDITION: GOOD
HISTORIC RATING: H
TOTAL INVENTORY: 340 SF

EXTERIOR	4130	Ext. Floor Surf./cover:	Cement

FEATURE DESCRIPTION: Cement ramp for handicapped accessibility to Memorial Building.
FEATURE NOTES: Added to existing floor at North (rear) entrance in 1991.
FEATURE CONDITION: GOOD
HISTORIC RATING: N

TOTAL INVENTORY: 450 SF

EXTERIOR	4142	Ext. Window Sash	Bronze

FEATURE DESCRIPTION: Three East and three West windows are each three units high (18 units), five North and five South windows are each single units (10 units)
FEATURE NOTES: Bronze hopper units are 40"x40"
FEATURE CONDITION: GOOD
HISTORIC RATING: H
TOTAL INVENTORY: 16 EA

EXTERIOR	4143	Ext. Window Trim:	Granite

FEATURE DESCRIPTION: Pierced granite window grille (5" thick with diagonal cross pattern) with 2 weeps at base of each window.
FEATURE NOTES:
FEATURE CONDITION: GOOD
HISTORIC RATING: H
TOTAL INVENTORY: 100 LF

EXTERIOR	4144	Ext. Window Hardware:	Bronze

FEATURE DESCRIPTION: Spring latch in center of upper frames, small chains on sides to hold sash open (28 sets)
FEATURE NOTES: One chain missing at lower sash of south window on West side.
FEATURE CONDITION: GOOD
HISTORIC RATING: H
TOTAL INVENTORY: 28 EA

EXTERIOR	4145	Ext. Window Sill:	Granite

FEATURE DESCRIPTION: Sloped granite block integrated with wall surface.
FEATURE NOTES:
FEATURE CONDITION: GOOD
HISTORIC RATING: H
TOTAL INVENTORY: 16 EA

EXTERIOR	4148	Ext. Window Lintel:	Granite

FEATURE DESCRIPTION: Granite integrated with wall surface.
FEATURE NOTES:

FEATURE CONDITION: GOOD
HISTORIC RATING: H
TOTAL INVENTORY: 16 EA

EXTERIOR	4149	Ext. Window Glazing:	Glass

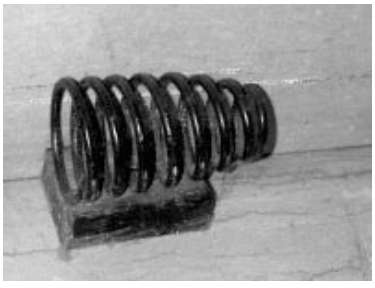
FEATURE DESCRIPTION: Single thickness (5/16) float glass
FEATURE NOTES: Solar film applied to glass
FEATURE CONDITION: FAIR
HISTORIC RATING: H/N
TOTAL INVENTORY: 28 EA
PRIORITY: HISTORICAL
DEFICIENCY: Non-historic, rose-tinted solar film applied to historic glass
RECOMMENDATION: Remove non-historic solar film from glass to restore interior lighting conditions. Apply UV clear film if required for material conservation of the cabin.
COST ESTIMATE: Total: $3000

EXTERIOR	4150	Ext. Door Unit:	Aluminum/ Bronze

FEATURE DESCRIPTION: *Outer threshold:* bronze colored aluminum store-front, double-size with transom above (rated N); *Inner threshold:* heavy bronze (rated H) *Basement:* arched top metal frame - painted. (rated H); *Plenum space above interior ceiling:* heavy bronze (rated H)
FEATURE CONDITION: FAIR
HISTORIC RATING: H/N
TOTAL INVENTORY: 5 EA
PRIORITY: HISTORICAL/SERIOUS
DEFICIENCY: Uneven and dull black coating on bronze doors; north door is out of plum causing serious ware on threshold; non-historic aluminum store-fronts at both south and north entrances are inappropriate for building.
RECOMMENDATION: Restore the original appearance of the bronze (reddish-golden brown patina); Rehang north door to eliminate ware on threshold; Relocate handicapped access button from surface of north door; Remove bronze colored aluminum store-front and door at south and north entrances and replace with total glass system.
COST ESTIMATE *for demolition*: $1500 ***for bronze restoration*:** $20,800.00

EXTERIOR 4150 Exterior Door Unit: Bronze

FEATURE DESCRIPTION:Outer: bronze colored aluminum store-front, double size with transom above (rated N) ; Inner: heavy bronze (rated H)
FEATURE NOTES: Basement: arched top metal frame - painted.(rated H); Plenum space above interior ceiling: heavy bronze (rated H)
FEATURE CONDITION: GOOD
HISTORIC RATING: H/N
TOTAL INVENTORY: 5 EA



EXTERIOR	4151	Ext. Door Frame:	Aluminum/ Bronze

FEATURE DESCRIPTION: *Outer threshold:* bronze colored aluminum store-front, double size with transom above (rated N); *Inner threshold:* heavy bronze (rated H); *Basement:* arched top metal frame - painted. (rated H); *Plenum space above interior ceiling:* heavy bronze (rated H)
FEATURE CONDITION: FAIR
HISTORIC RATING: N/H
TOTAL INVENTORY: 5 EA
PRIORITY: HISTORIC/SERIOUS
DEFICIENCY / RECOMMENDATION: See **4150 Ext. Door Unit**

EXTERIOR	4152	Ext. Door:	Aluminum/ Bronze

FEATURE DESCRIPTION: *Outer threshold:* aluminum entrances doors with full glass, 2'-5"x7'-0"/ *Inner thresh*old: large bronze double doors with recessed panels and studs, 2'-6"x 9'-10"
FEATURE NOTES: *Basement:* arched top kalemein-clad door with glass.; *Plenum space above interior ceiling:* single kalemein-clad door with recessed panel.
FEATURE CONDITION: FAIR
HISTORIC RATING: H
TOTAL INVENTORY: 9 EA
PRIORITY: HISTORIC/SERIOUS
DEFICIENCY / RECOMMENDATION: See **4150 Ext. Door Unit**

EXTERIOR	4153	Ext. Door trim:	Granite/Wood

FEATURE DESCRIPTION: *Grade entrance:* Granite molding 11" wide with projecting cornice at both entrances; *Basement:* Wood trim at basement door.
FEATURE CONDITION: GOOD
HISTORIC RATING: H
TOTAL INVENTORY: 50 LF
PRIORITY: MINOR
DEFICIENCY: Wood trim at basement door is loose.

EXTERIOR	4154	Ext. Door Hardware:	Aluminum/ Bronze

FEATURE DESCRIPTION: *Outer threshold:* standard push/pull, hinges and holders; Inner threshold: lion's head relief with pull ring in center round; bronze lever in stile. Bolts in top and bottom of fixed panel of double doors; Basement Door: round knob & escutcheon; Plenum space above interior ceiling: round knob & escutcheon
FEATURE NOTES: Door stops, detached wood blocks with springs.
FEATURE CONDITION: POOR
HISTORIC RATING: H
TOTAL INVENTORY: 9 EA
PRIORITY: HISTORIC/SERIOUS
DEFICIENCY: Uneven and dull black coating; loosened and strained handles.
RECOMMENDATION: See **4150 Ext. Door Unit**

EXTERIOR	4155	Ext. Door Sill:	Bronze

FEATURE DESCRIPTION: Large bronze floorplate at entrance doors
FEATURE NOTES: South door plate is worn smooth; North door plate scratched since door out of plum.
FEATURE CONDITION: FAIR
HISTORIC RATING: H
TOTAL INVENTORY: 2 EA
PRIORITY: SERIOUS
DEFICIENCY: Uneven and dull black coating; worn and scratched.
RECOMMENDATION: Consult metals conservator.
COST ESTIMATE: See **4150 Ext. Door Unit**

EXTERIOR	4158	Ext. Door Lintel:	Granite

FEATURE DESCRIPTION: Granite with cornice.
FEATURE CONDITION: GOOD
HISTORIC RATING: H
TOTAL INVENTORY: 2 EA

EXTERIOR 4159 Ext. Door Glazing: Glass

FEATURE DESCRIPTION: *Outer threshold:* aluminum entrances doors - single thickness glass with solar film in doors & transom; *Basement:* translucent wire glass
FEATURE CONDITION: GOOD
HISTORIC RATING: N
TOTAL INVENTORY: 2 EA
PRIORITY: HISTORIC
DEFICIENCY: Visually inappropriate rose-tinted film on North and South entrance doors.
RECOMMENDATION: See **4149 Ext. Window Glazing** estimate accounts for removal of tint on existing aluminum doors.

EXTERIOR 4170 Ext. Stair/Ramp Surface: Granite

FEATURE DESCRIPTION: Granite slabs form risers (5") & treads (20"); Monumental stairs: 30' wide in front - 56 risers; Secondary stairs to terrace: 9' wide on North, East, and West approaches- 2 risers each.
FEATURE NOTES: Monumental stair last repaired and repointed in 1990
FEATURE CONDITION: GOOD (3000 SF); FAIR (300 SF); POOR (60SF)
HISTORIC RATING: H
TOTAL INVENTORY: 3360.0 SF
PRIORITY: MINOR
DEFICIENCY: Chipped and eroding stone corners; failed sealant joints.
RECOMMENDATION: Replace/patch with like or compatible substitute materials. Repoint joints.
COST ESTIMATE: Materials: $1000 Labor: $10,000 Total: $11,000

EXTERIOR 4171 Ext. Stair/Ramp Structure: Concrete

FEATURE DESCRIPTION: Concrete stair to basement (38 SF); concrete foundation for terrace stairs
FEATURE CONDITION: GOOD
HISTORIC RATING: H
TOTAL INVENTORY: 3400.0 SF

EXTERIOR 4173 Ext. Stair/Ramp Railing: Metal

FEATURE DESCRIPTION: No handrail or guardrail at terrace stairs; 30" wide by

6" high (minimum) stone coping beside front steps (280 LF), 20" coping around terrace & other terrace stairs (260 LF); non-historic mounted on entrance to basement
FEATURE CONDITION: GOOD
HISTORIC RATING: H/N
TOTAL INVENTORY: 540.0 LF

EXTERIOR	4190	Ext. Other: Ladder	Iron/Wood

FEATURE DESCRIPTION: Ladder to roof: iron bars inserted between stone courses on north elevation; ladder projects around cornice; incorporated pulley system
FEATURE NOTES: A loose wood ladder with pipe rungs (stored in basement, 117" long, 14" wide) with steel hooks at top to connect to steel rungs imbedded in building on North side.
FEATURE CONDITION: POOR
HISTORIC RATING: H
TOTAL INVENTORY: 3 EA
PRIORITY: CRITICAL
DEFICIENCY: Rusting iron; loose wall connectors.
RECOMMENDATION: Clean and refinish ladder. Secure steel rungs to wall.Consult specialist to develop new safety harness system.
COST ESTIMATE *for replacement*: Materials: $1350 Labor/Equipment: $1150 Total: $2500

EXTERIOR	4190	Ext. Other: Coal Chute	Granite/Iron

FEATURE DESCRIPTION: Coal chute with granite surround and iron cover.
FEATURE NOTES: Circular opening located to the east of the North entrance. Provided grade access to furnace in basement.
FEATURE CONDITION: GOOD
HISTORIC RATING: H
TOTAL INVENTORY: 1 EA

EXTERIOR	4190	Ext. Other: Wall Vent	Copper

FEATURE DESCRIPTION: Air space (4" wide) in exterior wall vented with copper grille at base of wall and turned brick in plenum space above interior ceiling.
FEATURE CONDITION: GOOD
HISTORIC RATING: H

TOTAL INVENTORY: 1 EA
PRIORITY: MINOR
DEFICIENCY: The grille has fairly uniform coating of verdigris corrosion. There does not appear to be significant or rapid deterioration.
RECOMMENDATION: The grille should be gently cleaned and the verdigris left in place.
COST ESTIMATE: $300

INTERIOR ENVELOPE

Walls - Ceilings - Floors - Windows - Doors - Finishes

INTERIOR 4210 Int. Wall Surface/Cover: Plaster/Stucco

FEATURE DESCRIPTION: Plaster, painted (2820 SF);concrete, painted, in basement (1000 SF)
FEATURE NOTES: In 1941 two of the four marble plaques were temporarily covered over with plaster. In 1959 all four marble plaques (one on either side of two entrance doors) were removed and plaster was installed to match remaining blank panels.
FEATURE CONDITION: FAIR
HISTORIC RATING: H/T
TOTAL INVENTORY: 3820 SF
PRIORITY: HISTORIC
DEFICIENCY: Poorly executed plaster repairs (uneven textures); spray-applied and brush applied "skim coat" thick coating which has left drips and a very rough texture showing on the painted surfaces.
RECOMMENDATION: Replace marble plaques. Resurface plaster per historic finish (to resemble cut stone).
COST ESTIMATE: ***Restoration of Plaster***: $65,200 ***Re-painting walls:*** $32,000 Total: $97,200

INTERIOR 4211 Int. Wall Structure Masonry

FEATURE DESCRIPTION: Masonry building tile 12" thick, separated from outer structure by 4" air space; *note*: basement concrete not included
FEATURE CONDITION: GOOD
HISTORIC RATING: H
TOTAL INVENTORY: 3880 SF

INTERIOR	4213	Int. Wall Trim	Marble/Plaster

FEATURE DESCRIPTION: WAINSCOT: Marble wainscot with base & cap (138 LF, 605 SF), PLASTER MOLDING: picture molding approx. 2' from ceiling (152 LF)
FEATURE NOTES: The cornice and neck moulding have been patched and repaired repeatedly.
FEATURE CONDITION: GOOD
HISTORIC RATING: H/T
TOTAL INVENTORY: 290 LF
PRIORITY: SERIOUS
DEFICIENCY: WAINSCOT: deeper scratches and gouges; dull finish. PLASTER MOLDING: Fine white mycelia growth; small dots or "freckles" of rust stain, condensation droplets, indicating that water is migrating over metal work somewhere. Profiles were not run using an accurate template mounted on a "horse" in the craftsmanlike manner.
RECOMMENDATION: WAINSCOT: Clean and repolish the marble. The deeper scratches and gouges shall be honed out before repolishing. After repolishing, no protective coating should be applied. Rather, the marble should simply be cleaned with a mild detergent (or a conservatorial nonionic detergent) and water, dried with a chamois cloth, and if necessary, buffed with a lambswool buffer to bring up the polish again. PLASTER MOLDING: Determine where water is migrating from and eliminate access point(s). Clean, repair cracks, and resurface plaster to historic profiles/finish.
COST ESTIMATE *for restoration of marble*: $4.00 per sq. ft. Total: $10,500

INTERIOR	4220	Int. Ceiling Surface/Cover	Plaster/Copper

FEATURE DESCRIPTION: Exhibit Hall: flat plaster, painted (1160 SF)- see ceiling trim and ornament; Basement ceiling: concrete, painted (660 SF)
FEATURE NOTES: copper covered ceiling lights with acrylic panels (240 SF)
FEATURE CONDITION: FAIR
HISTORIC RATING: H/N
TOTAL INVENTORY: 2060 SF
PRIORITY: SERIOUS/HISTORIC
DEFICIENCY: Exhibit Hall: historic copper ceiling grid with non-historic acrylic panels. Plaster: fine white mycelia growth; small dots or "freckles" of rust stain, condensation droplets, indicating that water is migrating over metal.
RECOMMENDATION: Remove non-historic acrylic panels and replace with material similar to frosted glass to restore ceiling to historic period 1909-ca1911.

Determine where water is migrating from and eliminate access point(s). Clean and repair cracks (see Preservation Brief #21: Repairing Historic Flat Plaster-Walls and Ceilings). Remove non-historic plenum and lights. Rehabilitate lighting conditions with side wall mounted lighting system.
COST ESTIMATE *for replacing panels*: Materials: $9000 Labor: $2400 Total: $11,400***; for removing plenum:*** Labor: $1800***; for replacing lights:*** Materials: $1000 Labor: $2000 Total: $3000
Total: $16,200

INTERIOR	4221	Int. Ceiling Structure	Concrete

FEATURE DESCRIPTION: Suspended reinforced concrete slab (1160 SF), steel hangers support ceiling light frame.
FEATURE CONDITION: GOOD
HISTORIC RATING: H
TOTAL INVENTORY: 152 SF

INTERIOR	4223	Int. Ceiling Trim	Plaster

FEATURE DESCRIPTION: Decorative plaster cornice, painted.
FEATURE CONDITION: GOOD
HISTORIC RATING: H/T
TOTAL INVENTORY: 152 SF
PRIORITY: SERIOUS
DEFICIENCY: Fine white mycelia growth; small dots or "freckles" of rust stain, condensation droplets, indicating that water is migrating over metal work somewhere. Profiles were not run using an accurate template mounted on a "horse" in the craftsmanlike manner.
RECOMMENDATION: Determine where water is migrating from and eliminate access point(s). Clean, repair cracks and repaint plaster. Remove excess plaster to reastablish historic profile. If necessary remove improper patch and repair using proper preservation methods (see NPS Preservation Brief 23: Preserving Historic Ornamental Plaster).
COST ESTIMATE: See **4210** for cost.

INTERIOR	4224	Int. Ceiling Ornament	Plaster

FEATURE DESCRIPTION: Plaster rosettes in square coffering.
FEATURE CONDITION: GOOD
HISTORIC RATING: H

TOTAL INVENTORY: 16 EA
PRIORITY: MINOR
DEFICIENCY: The thick spray coating has gathered in drips at the ends of all downward curving points on the rosettes. While this is not a condition that endangers the plasterwork and probably is not noticed by visitors to the building, it nevertheless adds to the general degrading of the original well-defined surfaces, mouldings, and details of plasterwork on the interior.
RECOMMENDATION: Remove excess spray coating to re-establish historic profile.(see NPS Preservation Brief 23: Preserving Historic Ornamental Plaster).
COST ESTIMATE: See **4210** for cost.

INTERIOR	4230	Int. Floor Surface/Cover	Brick/Marble

FEATURE DESCRIPTION: Brick (730 SF) laid in herringbone pattern with Tennessee marble borders & squares (200 SF); Unreinforced concrete fill with projecting gravel in and around cabin. (470 SF). Bare concrete floor in basement (660 SF)
FEATURE NOTES: The floor of the cabin was historically concrete. Due to extensive cracking and patching of the floor and the interest by park staff in providing a more realistic appearance to the cabin floor a new floor was installed in 1959. The new floor was made of clay and glue with wire mesh laid (1") over the historic concrete to simulate a smooth, hard packed, dark earth floor with cracks.
FEATURE CONDITION: GOOD / FAIR
HISTORIC RATING: H
TOTAL INVENTORY: 2060 SF
PRIORITY: MINOR
DEFICIENCY: Non-historic clay floor in cabin
RECOMMENDATION: Remove simulated clay floor in cabin and restore concrete floor per historic period 1909 - ca1911
COST ESTIMATE *for removal and replacement of concrete*: Materials: $1100 Labor/Equipment: $8800 Total: $9000; ***for restoration of marble:*** included in **4213**.

INTERIOR	4231	Int. Floor Structure	Concrete

FEATURE DESCRIPTION: Concrete (one way span 84") slab with E-W beam (10" wide x 14" deep plus slab), concrete slab on grade in basement.
FEATURE NOTES: Concrete beam has vertical crack (0.1"±) directly over each brick pier.
FEATURE CONDITION: GOOD
HISTORIC RATING: H

TOTAL INVENTORY: 2060 SF

INTERIOR	4253	Int. Window Trim	Plaster

FEATURE DESCRIPTION: Splayed plaster jambs around openings, raised plaster molding around all windows from wainscot up 14'.
FEATURE NOTES:
FEATURE CONDITION: GOOD
HISTORIC RATING: H
TOTAL INVENTORY: 960 LF

INTERIOR	4253	Int. Door Trim	Marble

FEATURE DESCRIPTION: Marble molding with projecting cornice at both entrances, same as exterior, sides 11", cornice 29"
FEATURE NOTES:
FEATURE CONDITION: GOOD
HISTORIC RATING: H
TOTAL INVENTORY: 50 LF

INTERIOR	4253	Int. Finishes	Paint/Clear Coat

FEATURE DESCRIPTION: Circa 1959 blue-tone color schedule on walls and ceiling.
FEATURE NOTES: Accent colors on architectural molding, rosettes, etc.
FEATURE CONDITION: FAIR
HISTORIC RATING: N
TOTAL INVENTORY: 290 LF
PRIORITY: HISTORIC
DEFICIENCY: Non-historic interior finishes.
RECOMMENDATION: Paint plaster interior per historic period 1909 - ca1933 (see Materials Analysis). When the building is repainted, and loose material is removed, it is very important to have surface preparation done which carefully removes all unevenness--i.e., sand down the edges where heavy build-up meets bare substrate.
COST ESTIMATE : see **4210** for cost.

INTERIOR	4290a	Int. Envelope: Wall Grille Plate	Bronze

FEATURE DESCRIPTION: Air space (4" wide) in exterior wall vented with bronze

HVAC grille plate
FEATURE CONDITION: POOR/FAIR
HISTORIC RATING: H
TOTAL INVENTORY: 4 EA
PRIORITY: MINOR
DEFICIENCY: Surface is dull and dirty.
RECOMMENDATION: The grille should be gently cleaned/polished and the verdigris left in place.
COST ESTIMATE: $1000.00

INTERIOR	**4290b**	**Int. Envelope: stanchions/ chains**	**Bronze**

FEATURE DESCRIPTION: Bronze stanchions, set on the interior marble border, connected by chains to surround the cabin.
FEATURE CONDITION: FAIR
HISTORIC RATING: H
TOTAL INVENTORY: 1200 LF
PRIORITY: MINOR
DEFICIENCY: Uneven and dull black coating.
RECOMMENDATION: The posts should be straightened and either cleaned and polished and protected, to let the wear of the years show, or repatinated to match the rest of the bronze. The chains should be treated in the same manner as the posts.
COST ESTIMATE: $14,200.00

ROOF	**4310**	**Roof Surface/Cover:**	**Built-up**

FEATURE DESCRIPTION: Built-up roof (1500 SF); includes built up roof over South portico (behind low parapet wall).
FEATURE NOTES: Building last reroofed in 1981
FEATURE CONDITION: POOR
HISTORIC RATING: N
TOTAL INVENTORY: 1500 SQ
PRIORITY: CRITICAL

DEFICIENCY: Loose and open seams.
RECOMMENDATION: Repair loose and open seams. Roofing consultant should be hired to evaluate condition of overall roofing system. Total replacement of roofing may be needed.
COST ESTIMATE *for roof replacement (Asphalt flood coat)*: Materials: $30,000 Labor/Equipment: $50,000 Total: $80,000

ROOF	4311	Roof Structure	Concrete

FEATURE DESCRIPTION: Reinforced concrete roof slab over concrete beams, accessible through exterior hatch.
FEATURE NOTES:
FEATURE CONDITION: GOOD
HISTORIC RATING: H
TOTAL INVENTORY: 1500 SF

ROOF	4321	Roof Hatch	Wood

FEATURE DESCRIPTION: Scuttle located in center of roof section near ladder provides access to plenum space above interior ceiling and below reinforced concrete roof slab.
FEATURE NOTES: No roof vents from plenum
FEATURE CONDITION: GOOD
HISTORIC RATING: H
TOTAL INVENTORY: 1 EA

ROOF	4323	Skylight	Metal/Glass Block

FEATURE DESCRIPTION: Skylight of "pavement lights" located in center of building (240 SF)
FEATURE NOTES: Area between pavement lights & ceiling light has been boxed in with plywood & equipped with fluorescent lighting to provide uniform illumination.
FEATURE CONDITION: POOR
HISTORIC RATING: H/T
TOTAL INVENTORY: 1 EA (pavement lights - 240 SF)
PRIORITY: CRITICAL
DEFICIENCY: Corroded and damaged skylight frame with broken and loose wire glass; dirty and cracked glass block. Skylight blocked by plenum barrier.
RECOMMENDATION: Repair and resurface skylight and glassblock. Consider use

of conservation-tested glazing system for greenhouse enclosure. Remove plenum according to **Interior 4220**.
COST ESTIMATE *for replacement of skylight and glassblock*: Materials: $22,000+$5800=$27,800 Labor: $3500+$3900=$7400 Protection: $4224 Total: $39,424

ROOF	4330	Chimney	Terra Cotta

FEATURE DESCRIPTION: Flue is enclosed in rear wall between windows (8 1/2"x18"), a terra cotta shaft extends above parapet
FEATURE CONDITION: GOOD
HISTORIC RATING: H
TOTAL INVENTORY: 42 LF

ROOF	4340	Roof Flashing	Built-up

FEATURE DESCRIPTION: Base flashing & counterflashing around edges
FEATURE CONDITION: POOR
HISTORIC RATING: N
TOTAL INVENTORY: 160 LF
PRIORITY: CRITICAL
DEFICIENCY: Parapet wall flashing has become detached on portion of South side.
RECOMMENDATION: Repair loose and open seams. Roofing consultant should be hire to evaluate condition of overall roofing system. Total replacement of roofing may be needed.
COST ESTIMATE: Materials: $6000 Labor: $2500 Total: $8500

ROOF	4350	Roof Drainage System	Copper

FEATURE DESCRIPTION: Scuppers at roof parapet with copper leader heads and downspout above cornice, drain through cornice with copper leader heads and downspout below, cast iron shoe drains into pavement (26" high), 4 shoe drains
FEATURE NOTES: Portico has a projecting scupper on East and West sides. Basement has two floor drains and the basement stairwell has one floor drain.
FEATURE CONDITION: GOOD
HISTORIC RATING: H/T
TOTAL INVENTORY: 16 EA

ROOF	4351	Gutter/Downspout	Copper

FEATURE DESCRIPTION: Copper downspouts 5"x3", 2 per side, 4 copper brackets per downspout.
FEATURE NOTES:
FEATURE CONDITION: GOOD (124LF)/FAIR (6 LF)
HISTORIC RATING: H/T
TOTAL INVENTORY: 130 LF
PRIORITY: MINOR
DEFICIENCY: Broken downspout mounting bracket
RECOMMENDATION: Repair/ reattach
COST ESTIMATE: Materials: $60 Labor: $60 Total: $ 120

GENERAL BUILDING/ SITE

See Cultural Landscape Report.

EXECUTIVE SUMMARY: UTILITIES

MECHANICAL (HVAC) SYSTEM

The building, constructed in 1911 and without any insulation, is served by a split, direct exchange (DX) air conditioning system consisting of one ten ton outdoor condensing unit connected to two 150,000 Btuh gas furnaces, twinned together. This system was installed in 1994. The furnaces, located in the basement, support a common ten ton evaporative coil, a steam humidifier, and are controlled by a single electro-mechanical thermostat which is mounted on the main level inside the historic cabin. The humidifier, controlled by humidity sensors mounted on the return air plenum in the basement, normally operates only in the winter months when cold outside air is heated to comfort levels thus reducing its moisture content to humidity levels below that required for preservation of the resource and visitor comfort. The ductwork, also installed in 1994, consists of two main supply trunks, each serving two sidewall supply registers in the conditioned space. Likewise, two return air plenums connect to large floor return grilles adjacent to the cabin. In lieu of modern registers, historic grilles, carryovers from early heating and ventilation system, are used for the sidewall air moving devices. Indications from park personnel as well as a history of temperature and humidity as recorded by a hygrothermograph, also located inside the cabin, show that the unit performs superior in temperature control and above average in the

control of relative humidity.

However, there are several shortcomings that the park emphasized during some periods throughout the seasons and under certain conditions:

1. Excessive condensation on the inside of the windows during periods of very high humidity in the summer and extremely cold days in the winter. Water is reported to actually flow down the inside of the walls.
2. Conditioned air (cold in the summer and hot in the winter) blows directly on the wall of the cabin, thus providing a threat to the stability of the park's most important resource. Also, thorough mixing with room air, which is necessary for proper air conditioning function, is also hampered in that much of the air is short-circuited into the floor return air grilles.
3. The thermostat location inside the cabin is not exposed to a representative air flow and thus may contribute to unsatisfactory temperature and humidity control. However, a study of the hygrothermograph charts indicate that temperature control is not necessarily a significant problem, although humidity control is a problem.

ELECTRICAL SYSTEM:

Electrical service is furnished to the building by an underground high Voltage primary to a pad-mounted transformer located approximately 25 feet from the East wall of the Memorial Building. The transformer and all underground primary cable is under the ownership and responsibility of the power company, Kentucky Utility (KU). The secondary service to the building consists of a set of 4/0 AWG copper condutors running underground in steel conduit to the service disconnect in the basement, consisting of a 200 Amp three phase (3 f) fused disconnect containing three 200 Amp fuses. Service Voltage is 120/240 Volts, 3 f delta with a "high leg" of 208 Volts to ground. The disconnect feeds two disconnects and one lighting panel. The first disconnect is a 100 Amp 3 f switch serving the outdoor condensing unit. The second is a 30 Amp 3 f switch which feeds the humidifier. The panel is a 125 Amp sub-panel which is protected by a 100 Amp main and serves six branch circuits: A 20 Amp circuit to each air handler, one 20 Amp circuit feeding the mechanical door opener, three 20 Amp lighting circuits, and one 15 Amp receptacle circuit. Besides the lighting in the basement, the major lighting load consists of 15- two lamp fluorescent fixtures in a cavity several feet below the upper ceiling. Although the fixtures do not have lenses, a a set of plastic panels filter the light into the Memorial Building. Most of the equipment has been upgraded over the years and is therefore in good condition. However, deficiencies and violations of the National Electrical Code (N.E.C.) were noted and are summarized below:

1. The "high leg" conductor of the three f service is required to be identified with an

orange marking, usually a plastic tape. Only the service disconnect contained markings on the high leg conductor, which consisted of three red pieces of tape. The other two disconnects were not labelled at all.
2. At least one circuit, a 20 Amp lighting circuit, used a cloth-insulated conductor which is obsolete.
3. There was evidence of moisture infiltrating the service disconnect and the trough below it.
4. The lighting panel is a subpanel which cannot have a bonding jumper between the neutral and ground buses (N.E.C. Section 250-23). However, this subpanel not only has such a bonding jumper, but neutral and equipment grounding conductors are connected to both of them in no particular fashion.
5. Splices were made inside the new lighting panel in order for the branch circuit wiring to "reach" the new circuit breakers. Splices are not permitted inside panelboards but should be placed in junction or splice boxes outside of the panel.

PLUMBING SYSTEM:

The plumbing system consists of a single water 3/4" water line which enters the basement with the refrigerant and electrical lines going out to the condenser, runs down the North wall of the basement, and terminates into a hose bibb. There are several floor drains throughout the basement floor as well, but since there is not sanitary sewer, it is assumed that they drain either into the ground or a storm sewer.

Feature Inventory & Condition Assessment - Cabin

The Traditional Lincoln Birthplace Cabin, is a round and hewn log building consisting of one room with a 3/4 height log chimey and wood gable roof. The cabin is presently housed in the Abraham Lincoln Birthplace Memorial Building and has a total floor area of 225 square feet.

EXTERIOR ENVELOPE

Walls - Ornament - Ceilings - Floors - Windows - Doors - Finishes

EXTERIOR	4111	Ext. Wall Structure:	Logs

FEATURE DESCRIPTION: V-notched logs with mud chinking
FEATURE CONDITION: GOOD
HISTORIC RATING: H
TOTAL INVENTORY: 700.0 SF

EXTERIOR	4113	Ext. Wall Trim:	Mud

FEATURE DESCRIPTION: Mud chinking made from local clay fills the openings between logs
FEATURE NOTES: Quantity does not include chinking between chimney stricks
FEATURE CONDITION: GOOD
HISTORIC RATING: H
TOTAL INVENTORY: 550.0 LF

EXTERIOR	4141	Ext. Window Frame	Wood

FEATURE DESCRIPTION: one vertical timber on each side of opening held in place with wooden pegs
FEATURE NOTES:
FEATURE CONDITION: GOOD
HISTORIC RATING: H
TOTAL INVENTORY: 1 EA

EXTERIOR	4143	Ext. Window Sill:	Wood

FEATURE DESCRIPTION: Log - continuous below window opening
FEATURE NOTES:
FEATURE CONDITION: GOOD
HISTORIC RATING: H
TOTAL INVENTORY: 2.6 LF

EXTERIOR	4147	Ext. Window shutters:	Wood

FEATURE DESCRIPTION: Three vertical boards pegged to wooden hinges which pivot on a frame pegged to cabins wall/ shutter opens inward
FEATURE NOTES: Approx. 2' 4" square. A small pivoting catch would hold shutter closed. There is no window sash, only this shutter.
FEATURE CONDITION: GOOD
HISTORIC RATING: H

EXTERIOR	4148	Ext. Window Lintel:	Wood

FEATURE DESCRIPTION: Log - continuous above window opening
FEATURE NOTES:
FEATURE CONDITION: GOOD
HISTORIC RATING: H
TOTAL INVENTORY: 2.5 LF

EXTERIOR	4151	Ext. Door Frame:	Wood

FEATURE DESCRIPTION: One vertical timber on each side of opening held in place with wooden pegs
FEATURE NOTES: 2'8" x 6'3"
FEATURE CONDITION: GOOD
HISTORIC RATING: H
TOTAL INVENTORY: 1 EA

EXTERIOR	4152	Ext. Door:	Wood-board/bat-ten

FEATURE DESCRIPTION: Vertical boards pegged to wooden braces and hinges which pivot on two brackets pegged to cabin/ door opens inward.
FEATURE NOTES:
FEATURE CONDITION: GOOD
HISTORIC RATING: H
TOTAL INVENTORY: 1 EA

EXTERIOR	4155	Ext. Door Sill/threshold:	Wood

FEATURE DESCRIPTION: Log - continuous below door opening
FEATURE NOTES:
FEATURE CONDITION: GOOD
HISTORIC RATING: H
TOTAL INVENTORY: 2'8" LF

EXTERIOR	4158	Ext. Door Lintel:	Wood

FEATURE DESCRIPTION: Log - continuous above door opening
FEATURE NOTES:
FEATURE CONDITION: GOOD
HISTORIC RATING: H

INTERIOR ENVELOPE

INTERIOR	**4210**	**Int. Floor Surface**	**Clay**

FEATURE DESCRIPTION: Smooth clay surface made from clay and white glue/ surface has natural cracks.
FEATURE NOTES:
FEATURE CONDITION: GOOD
HISTORIC RATING: T
TOTAL INVENTORY: 170 SF

INTERIOR	**4218**	**Int. Fireplace**	**Brick**

FEATURE DESCRIPTION: Flate board mantel supported by two pegs in log above fireplace.
FEATURE NOTES: The firebox is lined with stone and mud to a height of 55'-0"
FEATURE CONDITION: GOOD
HISTORIC RATING: H
TOTAL INVENTORY: 1 EA

ROOF

GENERAL	**4310**	**Wood-shingle:**	**Wood**

FEATURE DESCRIPTION: Wood shingle roof held in place by overlaying poles with blocks between/ shakes are approx. 36" long
FEATURE NOTES: Consult *Historic Structure Preservation Guide 19:Cleaning and Maintaining Wood Shingle Roofs*
FEATURE CONDITION: GOOD
HISTORIC RATING: T
TOTAL INVENTORY: 3.0 SQ

GENERAL	4311	Roof Structure	Wood frame

FEATURE DESCRIPTION: Five poles spanning between end walls.
FEATURE NOTES:
FEATURE CONDITION: GOOD

GENERAL	4330	Chimney	Brick

FEATURE DESCRIPTION: Three-quarter height chimney (approx. 8'-6" high) of log, sticks and mud/ back of chimney is 5 logs with sticks above.
FEATURE NOTES:
FEATURE CONDITION: GOOD

UTILITY SYSTEMS

EXTERIOR	5420	Primary Elect. Dist. System

FEATURE DESCRIPTION: Three (3) switches near floor below cabin window control lighting in Memorial Building- one (1) duplex on floor and two (2) inside fireplace.
FEATURE NOTES: Thermostat mounted on cabin wall between door and window controls HVAC for Memorial Building
FEATURE CONDITION: GOOD

FIRE/LIFE/HEALTH SAFTY

FIRE SAFTY	**4711**	**Means of Egress:**	**N/A**

FEATURE DESCRIPTION: Cabin is not open to the public/ one door provides access
FEATURE NOTES:
FEATURE CONDITION: GOOD
HISTORIC RATING: T
TOTAL INVENTORY: 1 EA

Curatorial Assessment & Recommendations

The following assessment and recommendation is derived from the ABLI Collection Management Plan - 1992, Collection Condition Survey, and the HSR Assessment Team.

ABLI Collection Overview

The museum collection at ABLI numbers 466 objects. The majority consists of archival/photographic objects, which are kept in storage. Two of the objects on exhibit embody primary importance to the park: the Traditional Birthplace Cabin and the Lincoln Family Bible.

The Traditional Lincoln Birthplace Cabin is a one-room structure made primarily of white and red oak with clay chinking. The history of the cabin prior to 1860 is unsubstantiated, however after 1860 it was dismantled and reerected at several locations before being purchased and returned to the vicinity of the point where Thomas Lincoln built his log home in 1808. The Lincoln Farrm Association (LFA) returned the cabin for the sole purpose of

erecting a memorial to Abraham Lincoln. To build this memorial they raised funds, on a national level, and kept extensive records of all donations. The new memorial building did not sufficiently house the cabin and the cabin was cut off approximatly 4"-0" in one direction and 1'-0" in the other. None of the chinking is original. Recent improvements in security procedures and environmental standards follow the Regional Curator's recommendations made in November 1986.

Condition Assessment

The cabin in general is in good condition. However the lack of baseline photographic documentation makes a detail assessment of ongoing deterioration difficult. Vandalism by park visitor appears to be the primary cause of the loss and damage of historic fabric.

Control of temperature and relative humidity levels inside the memorial building has been a recognized, long-standing problem. This is a monumental problem, both from a technical standpoint and from a esthetic standpoint. The decision to place the log cabin inside the memorial building was beneficial in that the cabin is well protected from the majority of the outside elements. The downside of this is that the design of the memorial building presently does not allow for an "air-lock" for visitors entering the building. Thus, every time a door is opened the temperature and the relative humidity fluctuates. The attempts to alleviate temperature and relative humidity fluctuations by the installation of an Armstrong control system have not worked as expected. It appears that the humidistat (located in the basement) is reading the relative humidity of the basement area, not the memorial room where the cabin is located. It is recommended that the control humidistat be moved to the upper level inside the building " recommendations in the instruction manual p.9, "The control humidistat should be located where it will be exposed to the average air condition of the space to be humidified". Because the sensor unit has been installed in the basement this system is not reading the temperature and relative humidity in the desired area.

Only the interior of the cabin is being environmentally monitored with a hygrothermograph. From January 1 until June 14, 1987, the instrument was located in the front of the cabin. See Table I for a month by month analysis of the readings.

Table 1: Synopsis of Environmental Monitoring by Month

Month	Temperature (°F)	Relative Humidity
JAN	Relatively stable around 68° during the hours the building was closed.During operating hours there were eight days of serious fluctuation (from 66° to 80° then back down to 68°)	
FEB	First half of month repeated the Jan trends. Last half leveled out during operating hours. Most variation around 7th-8th with a 22 degree difference over 24 hrs.	RH showed the greatest variation during hours of operation. There was a gradual increase overall during the month from about 40% to 50% by end of month.
MAR	Leveled out at around 70°.Greatest variation came around March 10 when it dropped to 57° just before opening. Opening hours showed greatest variation.	There was generally a 10% difference on a daily basis. First half of month between 35% and 45%. Last half of month between 40% and 50%.
APR	Stabilized around 70°.	First half of month fairly stable around 45%. Greater variation the last half of the month topping 65% on two occasions.
MAY	Remained fairly stable with a gradual rise from around 70° up to about 76° around May 16, 19, 24, and 30.	Great fluctuations including a 15% drop over a 12 hour period from 72% to 55%.
JUN	Fairly stable around 72°.	Great variations especially over 60 hour period June 14, 15, and 16 when RH was fluctuating 10% hourly, while the overall reading was rising from 49% to 72% then back to 49%.
JUL	Fairly stable around 72-74°. Between 72° and 78°.	Fluctuated between 50% and 70% until mid-month when it leveled out around 50%-55%.
AUG	Between 72° and 78°.	In the 50%-60% range most of month. Almost on a daily basis it would rise above 60% usually during day. Last week leveled out.
SEP	Stable around 76° falling to about 70° by month's end.	In the 50%-60% range, going over 60% first & last weeks of month.
OCT	Fairly stable around 74°.	Stable between 40% - 50%.

Special Directive 80-1 (Revised 1986) identifies the recommended temperature and relative humidity (RH) levels as: "In exhibit and storage spaces, where comfort of people is a factor, the recommended levels are 18-20°C (64 - 68°F) ... Relative humidity is one of the most important environmental factors to control. It is also one of the most difficult. . . Ideally fluctuations should not exceed ±3% RH per month. . . Relative Humidity levels are maintained below 65% RH to reduce the potential for mold." Monitor for a minimum of one year before setting target temperature and relative humidity settings. Highs and lows for each month are included in Table 2.

Table 2: High and Low Temperature (°F)

Month	High Temp.	Low Temp.
January	82	58
February	82 60	55 32
March	73 57	59 33
April	72 63	66 37
May	74 64	71 48
June	77 67	72 45
July	78 68	71 46
August	78 ?	66 46
September	78 68	66 49
October	76 72	65 40

The memorial building has a humidifier on the heating system.

On November 18, the exhibit areas were monitored for both ultraviolet light and for visible light intensity as measured in footcandles.

Environmental Conditions and Monitoring Recommendations

1. Purchase a minimum of one hygrothermographs to monitor the memorial building. Manually-read instruments, such as thermohygrometers work equally well but must be monitored daily to get complete readings.
2. Investigate a climate control system for the memorial building in order to control fluctuations in temperature and relative humidity. The installation of any extensive system would involve the expertise and assistance of regional architects, engineers, and curators. Base the building's needs on the established baseline data of temperature and humidity gathered through environmental monitoring. The analysis of environmental data shows a great deal of seasonal variation of temperature and relative humidity. However, some stability exists in April. This may be due to changes in operating procedure: limiting the number of persons allowed in at one time, keeping the door closed, etc. During summer months the temperature remains high, partly as a result of heavy visitation and the frequent opening and closing of the door. Excessive heat in the winter drastically lowers the 23 relative humidity. For hygroscopic materials, such as chinking and plaster, this proves disastrous. The practice of

opening the doors on "nice" days defeats the purpose of an HVAC and humidification and/or dehumidification system. The added fluctuations this creates makes the system overwork to compensate. The same is true if the systems are shut off at night, fluctuations will still exist.

3. Institute an Integrated Pest Management Program using the guidelines in the NPS, Museum Handbook, Part I, Chapter 5, Biological Infestation. At one point, wood weevils were noted in the cabin, treated, and have not retured. The cabin was monitored for pests by a park ranger who worked at the park from 1989 until 1991.
4. Inspect the cabin chinking regularly and note/photograph any damage. Differentiate between environmental damage and vandalism.
5. A large photograph of each side (inside and outside) of the cabin should be made to provide baseline information to monitor loss and damage of historic fabric from environmental conditions and vandalism. When taking this photograph the distance from the wall, the height of the camera, and the lens used should be noted. On these photographs grids should be made. Each section of the grids should be numbered. Each grid section should then be rephotographed in detail with the grid number, a measuring stick, and date in the photo. If there are cracks, holes, mud dauber nests or any other defects, these should be documented in writing. It is suggested that a notebook be maintained with an individual page(s) for each grid section. Each section should contain the first photograph with a written description of all defects and measurements. Additional photographs and comments should be attached as monitoring proceeds. It is very important that relative humidity and temperature logs be maintained and correlated with the photographs. As or when changes occur in the building they should be noted in the documentation. It should be remembered that most changes in cracks (their width) will not occur at exactly the same time as a change in the temperature and relative humidity. They usually will take some time to evidence themselves.
6. Attempt to maintain light levels to a maximum of up to 300 lux (30 footcandles) as per the recommended light levels (visible) found in Special Directive 80-1 (Revised 1986).
7. Cover fluorescent tubes with ultraviolet sleeves. Install warm white fluorescent bulbs in all fluorescent fixtures. Refer to Conserve 0 Gram 3/4, "Light Filtering Screens".
8. Contact the manufacturers of the UV film used in the memorial building to ascertain the amount of UV the film can block. UV readings have been reduced to 50 to 66, but the film or installation may be defective.
9. Monitor light and temperature/humidity quarterly. Use the environmental monitoring kit distributed from the Southeast Regional office.

Curatorial Assessment & Recommendations - Amendment

Editor's Note

On June 2, 2000 SERO Chief Curator Allen Bohnert visited the Memorial Building. The primary purpose of the trip was to consult with SERO Cultural Resources Historical Architects and park staff on the treatments proposed for the Memorial Building and the approaches taken to preserve the traditional Lincoln Birthplace Cabin. These comments from his trip report serve as an amendment to the earlier recommendations made in the 1992 Collection Management Plan.

Historical Architects, Park Staff, and I discussed several preservation-related concerns and treatment proposals being discussed in the Historic Structures Report for the Memorial Building. While in the Memorial Building we looked at the HVAC system, modern doors, the Ultra Violet (UV) light filtering film applied to the glazing, the corrugated acrylic panels added to the ceiling/skylight, and the interior plaster design details obscured by several coats of paint.

The park's Conservation Survey described the building's humidity control system as if it was operating based upon the humidity levels in the basement area of the building. However, while the mechanism controlling whether or not the humidity controls are engaged is in the basement area, the sensors are in the air ducts and monitoring relative humidity levels in air from the exhibit space and not the basement. It appears as if the Conservation Survey includes inaccurate statements and incorrect assumptions about the building's HVAC system. Another aspect of the HVAC system we discussed is the

proximity of the conditioned air vents to the return grills. We discussed the possibility of installing louvers in both grills to direct airflow away from the return vents and to draw air into the return ducts 'away from' the conditioned air vents.

Concerns have been expressed about visual intrusiveness of the modern aluminum/glass doors. The original bronze doors reflect the monumental qualities of the building and are highly decorative. Replacing existing glass doors and aluminum framing elements is advisable. If the original doors are not going to be used and doors/framing recommended for installation that do not visually disrupt the building's esthetic, it should be possible to use frosted glazing or glazing with surface characteristics the both eliminate UV light and reflective glare.

The extant UV filtering film on the windows is tinted and clearly it can be replaced with clear UV filtering film. It will be advisable to determine how difficult it will be to remove the existing film and adhesive. Removal of such films may or may not be a complicated and difficult undertaking. Light levels entering the building through the windows will not adversely effect the cabin, and the UV filtering material does not need to reduce visible light to protect the cabin. There may be other reasons, such as heat build up in the building, to use a film that, while not colored, reduces the amount of visible light (radiant energy) entering the building. However, the window grates undoubtedly already help to sufficiently reduce light levels.

The removal of corrugated acrylic panels from the skylight area and replacing with frosted acrylic panels should be fine. It will be necessary to ensure the new acrylic panels eliminate UV light. The need to take every precaution to ensure no the cabin is not damaged while any of the above work, including removal of over painting on plaster design elements and the removal of the simulated clay floor inside the cabin, is well understood. Medium format photographs were taken of the cabin to provide comprehensive detailed photographic documentation of the cabin's condition. This will essentially serve as 'baseline' condition data or documentation and should be included in the park's archives.

Historic Paint & Finishes Study

EXECUTIVE SUMMARY

The purpose of this paint and finishes study is to provide information about the sequence of paint and finishes on the interior of the Abraham Lincoln Birthplace building for the Historic Structure Report. No paints were found on the exterior, but the study does discuss the evidence of other finishes which were found on the bronze doors, door frames, vent grilles, and commemorative plaques.

In addition, the condition of all painted and finished surfaces was examined. The problems found are discussed, with general recommendations for remedying them. Underlying causes of actual or potential paint failure, such as failure of skylight flashing or lathing attachments, were not investigated as part of this paint study.

Site investigation was carried out over two days, October 16 and 17, 1998. Laboratory work was done from October 18 through October 20. The site investigation, paint analysis, and report preparation was done by Sara B. Chase, Architectural Conservator, of Lexington, Massachusetts. Assistance was provided on-site by Tammy McKinney, Jenny Jones, and Gary Talley, Acting Superintendent.

PAINT AND FINISH HISTORY SUMMARY

The structure which houses the Lincoln Birthplace cabin has only painted plaster and bronze as substrates for applied finishes. None of the architectural elements are made of wood.

PAINTED PLASTER

Built in 1909, it has been painted over its entire painted surface seven times. A few areas show fewer layers of paint. That is due to repair/replacement of plaster in those places. All of the paints are oil paints; some appear to be matte and other have a higher gloss level but none higher than “satin.”

The predominantly blue color scheme is not original. The original paints had soft light gray and grayed cream hues--often termed “stone” colors. Evidence from work files on site indicate that the blue color scheme was first used in the extensive 1959 work, and has been repeated in subsequent interior paint jobs.

It is possible to conjecture that the building was painted at roughly these times:

-1909: original finish
-1933: NPS is given responsibility for building
-1944(?): some intervening time prior to 1959
-1959: documented painting and color schedule
-1977: documented painting
-1983: documented painting
-1995: documented painting

The samples with the greatest number of layers had seven layers of finish paint. The more recent four layers had blue tints. None of the three earlier layers found were blue. All paints were matte. There was evidence of a thin oil glaze over some dirt particles on the first and second layers.

It is reasonable to speculate that the original painted surfaces were given a thin coat of linseed oil in order to make them look better (at least shinier and less dull) when ownership of the building was transferred from the private group to the federal government in 1916. The second application of a thin coat of linseed oil over paint with microscopic dirt particles randomly distributed on its surface might have been done sometime between 1933 and 1959. If, as conjectured, the building was painted in c. 1944 or 1945, the surface of the paint might have been “refreshed” with a thin coating of linseed oil prior to the 1959 work.

BRONZE

The bronze window frames, door frames, doors, and exterior plaques have a dull black-colored coating, partly worn off in some areas, which is not original. It covers

the original patination which appears to have been a warm brown, with slightly reddish tones. The bronze wall grilles are somewhat worn but mainly have their original soft gold-colored finish. The cellar door is kalemein-clad. Correspondence and other documents on file at the site confirm that substantial reconditioning work was done on the bronze doors in 1959.

CONDITION SUMMARY

PLASTER

Two problem conditions were seen over all painted surfaces:

a) poorly executed plaster repairs
b) spray-applied and brush applied “skim coat” thick coating which has left drips and a very rough texture showing on the painted surfaces.

On some of the moulded areas, the thick “skim coat” build-up is not well adhered to the underlying surface. The drips from the downward curving tips of the rosettes look almost like stalactites in most coffers. The overall effect of the thick, sprayed-on material is to reduce the original clean lines of the plaster trim work. What was very likely intended to look like cut stone now looks softly rounded at all edges. Photographs show many areas where moulding profiles were apparently repaired by hand-forming rather than by use of a template and “horse.”

In addition, there is some evidence of slow but steady water penetration. At the southeast corner and in several places along the west (from south to north), the flat ceiling areas have small colonies of some species of whitish and blackish mycelia growth. In the southeast corner there are also the small rust-colored dots and long almost microscopic cracks in the painted surface which suggest that water is slowly seeping in from above and gradually evaporating on the ceiling surface. These only appear on flat areas, not on the coffer rosettes.

PAINT

The present paint color scheme is not the original color scheme. So far, no paint specifications by architect John Russell Pope have been found, but the paint evidence shows that the original intent was for the paint to have nearly neutral tones of the so-called stone colors. “Picking out” was subtle and minimal; the trim color was close to the wall color; the rosettes were a little deeper in tone.

BRONZE

The primary condition to be remedied on the bronze doors, door frames, window frames, stanchions and chains, and exterior plaques is the removal of the uneven and dull black coating. There is also some corrosion occurring on the exterior commemo-

rative plaques. The nearly uniform verdigris corrosion on the exterior vent grilles is acceptable and could be stabilized “as-is.”

TECHNIQUES OF ANALYSIS

The first step in examining painted finishes is to determine the layer sequences-the chromochronologies of each architectural feature. The challenge of taking samples of brittle plaster on which enough paint remained attached to substrate to allow for cross-sectioning was extreme. Thus, in order to minimize the destructive part of the sample taking, most samples here were taken with a NO. 18 blade X-acto knife down only to the original sealer coat on the plaster. Each sample then had to be carefully wrapped before it was placed in a coin envelope and then in a hard case for transportation to the laboratory.

Observation and sampling was done from two platforms on a rolling stage, erected to give access to the ceiling and the tops of the window trim.

The stage was rolled to each of the four comers of the chamber. In the northwest comer, the present park ranger’s desk had to be moved. Thus, the ceiling, walls, picture rail moulding, and window trim were examined and sampled in areas where the removal of material was not immediately evident to visitors. Only a few confirming samples were taken lower down.

The number of areas cut into with the X-acto knife was not counted. The number of samples studied in the laboratory was 20.

Lights were provided on site, using a 75 watt photo-reflector flood. All areas were examined using a lOx. Hasting triplet lens and a 3x visor, as well as a 24x Zeiss binocular lightweight microscope in the field. In the laboratory, examination was done using a Nikon s-10 stereozoom binocular microscope and two arm fiber optics light source. The microscope objective was covered with a daylight blue filter to correct for daylight color rendition. The bench mounted microscope has objectives which have a range from 40x to 200x.

Cross-sectioning in the conventional manner was not possible due to the friable plaster substrate and the brittle paint layers. Thus, where layers did adhere to each other, cross-sections were carefully cut with the scalpel blade after the samples had been embedded in a hard paraffin base. (This is a technique used some years ago at the NPS laboratory formerly located in Building 28 at the Charlestown Navy Yard and now at the Boott Mill in Lowell, Massachusetts. It is still useful.)

On samples where original paints were found, the original layer was exposed to UV light in a controlled setting for 48 hours. Because there was an oil medium, there was some reversing of the normal yellowing of linseed oil, but not as much as had been expected. This suggests that the original paints may have had a binding medium which was part linseed oil and part protein (hide glue), which does not yellow. That

may have been done to promote greater color stability (i.e., lack of color shift in the more shaded areas due to less exposure to natural UV from the skylight and side windows).

No good photographs showing the interior prior to the three-color blue scheme were seen at the site. However, the site staff were very helpful in bringing out and going through folders documenting work done as far back as 1959, with some mention of paint in the 1940's. Other than that, the 1959 and post-1959 documentation is very clear and even includes paint chips from the Pratt and Lambert paint formulation-no pigments called out, but the bases and tint numbers of the paint company listed.

INTERIOR FINISHES--HISTORY

The dates assigned to the painted finishes are based on documents which clearly confirm work done from 1959 to the present. The dates assigned to the painted finishes prior to 1959 are based on informed conjecture. In 1933, for example, responsibility for the building was transferred from the U.S. War Department to the National Park Service. If the building had not been repainted inside in 1916, when the private owners gave the building to the federal government, then we may reasonably assume that the Park Service did paint work sometime around 1933.

FIRST PERIOD: 1909 - c. 1933

The cornerstone was laid in 1909. Probably the first finish paint was not actually applied until 1910, or even 1911, closer to the opening date.

Floor / Wainscot:

The terrazzo floor and Tennessee marble floor border and wainscot were highly polished. The terrazzo and marble of the interior appear to have continued to be polished. However, as the conditions statement notes, the application of abrasive cleaners and possibly of some synthetic protective coating has left the marble with a dull surface. The floor is probably protected and polished by use of hard wax. The walls above the wainscot were painted with a soft light gray matte oil paint.

Neck, Trim, and Cornice Mouldings:

The neck moulding (not quite a picture rail) and the cornice moulding were a slightly lighter gray. Only the cornice elements and narrow neck moulding were picked out.

Ceiling:

The ceiling was a very slightly rosy off-white. All elements of the ceiling except the rosettes in the centers of the coffers were painted the same color. The rosettes were painted a slightly deeper tint of the very slightly rosy off-white.

Bronze:

The bronze doors and frames, window sash frames, and stanchions appear to have had a warm reddish brown patina. The wall-mounted grilles and possibly the stanchion chains were a warm yellow gold color, apparently with a thin light brown shellac or varnish over bright metal.

SECOND PERIOD: c.1933 - c. 1944

This date was selected because it marks the transfer of responsibility for the Monument to the National Park Service. It is reasonable to speculate that after twenty-four years the interior would need to be repainted.

Some time prior to the second repainting over the entire painted portion of the interior, a thin layer of clear linseed oil was applied over the original pale soft paints on the walls and ceiling. Because the oil yellows over time when not exposed to UV light, that initial light soft bluish gray of the walls now looks very slightly greenish, as does the cornice and ceiling. The next was not a monochrome over the entire painted portion of the interior.

Walls:

The paint was a slightly darker gray on the walls.

Neck, Trim, and Cornice Mouldings:

The mouldings were painted a lighter gray color -- the same tint as the original wall color.

Ceiling:

The ceiling was painted a soft cream color. All ceiling elements appear to have had the same paint.

Bronze:

Neither documentation nor physical evidence give information about any treatment of the bronze elements of the interior at this time.

THIRD PERIOD: c. 1944 - 1959

Without documentary information it is not possible to date the paint layer which was applied some time after c. 1933 but prior to 1959. The 1959 shift to an interior color scheme which included three shades of blue paint is well documented. Three Finish paint layers lie beneath the blues. There is no evidence of water-base paint having ever been used on this interior, and so the first paint layer on undisturbed original

substrate may be designated as the original finish paint. The argument for supposing that c. 1933 is a reasonable date for the seco finish layer is stated above (Second Period...).

The walls were painted a pale soft cream color, with a very slight gloss, not totally matte.

Neck and Cornice Mouldings:

These mouldings were ivory, again, not totally matte.

Ceiling:

The ceiling was also a cream color.

On the comers of the outermost flat band of trim moulding, the piece which returns to the wall, on two windows on the east wall and one on the south wall, there was a distinct medium reddish brown paint. A photomicrograph of one of these samples is attached to this report. The two earlier paint layers lie under it, and the blues (with white primers) lie on top of it. Perhaps it was scraped off from most of the window trim moulding areas because it was deteriorated and/or loose.

FOURTH PERIOD: 1959 - 1977

The 1959 paint scheme is well documented, as are the next three after it. Physical evidence in the building confirms the documents. In a letter to “Regional Director, Region One” dated February 3, 1959, Ernest L. Wright, Jr., Superintendent of the Abraham Lincoln NHP stated,”A well know (sic) Plasterer and Decorator were brought in for consultation on this work (‘repairing the Memorial Building interior’) and are in agreement as to how it should be accomplished.” On the second page of that document Wright stated, “ This sketch shows three different colors to outline the various mouldings and features of the walls and ceiling.” The sketches, actually scale elevations and a reflected ceiling plan, are not the only evidence of that first blue color scheme; actual color chips of the Pratt and Lambert paints used are on file.

The walls are painted “ ‘Silver Blue’ - a mixture of 1 part ‘Delft Blue’and 2 parts ‘White.’

All trim mouldings:

The mouldings (neck moulding, door and window trim, panel mouldings) are painted “‘ Fresno Blue- - a mixture of I part ‘Delft Blue’ and 4 parts ‘White.’

The ceiling is painted with both Silver Blue and Fresno Blue, the lighter of the two used on the rosettes and flat coffer bands, and the slightly deeper hue on all the rest

of the ceiling, except for the flat recessed bands between the flat coffer mouldings. Those are painted “Delft Blue - a standard color.”

FIFTH PERIOD: 1977 - 1983

The 1977 paint schedule repeats the 1959 paint schedule.

SIXTH PERIOD: 1983 - 1995

The 1983 paint schedule repeats the 1959 paint schedule. There is one significant coating added over the entire interior surface beneath the paint at this time. A thick white material somewhat like joint compound appears to have been sprayed over the entire building. The fact that it was sprayed is quite evident in the drips which hang like nascent stalactites from the tips of the downward curved petals of the rosettes. The thickness of the coating is evident in the brush marks it holds on all cornice mouldings.

SEVENTH PERIOD: 1995 - present (date of inspection 1998)

The 1995 paint schedule repeats the 1959 paint schedule.

HISTORIC PAINT SCHEDULES

Unless otherwise specified, all Munsell colors are from the Nearly Neutral color book. These colors provided the best matches and are all matte, as are the historic paints in the Abraham Lincoln Memorial building.

FIRST PERIOD: 1909 - c. 1933

WALLS	TRIM MOULDINGS	CEILING	ROSETTES
5Y 8.5/0.5	10YR 8/2.0	10YR 8.5/1.0	10YR 8/2.0

Note: A thin layer of linseed oil was applied over this paint at some time. There are microscopic dirt particles which appear to be beneath the oil, indicating that the paint had been in place long enough to accumulate some dust before the oil was applied.

SECOND PERIOD: c.1933 - c. 1944

WALLS	TRIM MOULDINGS	CEILING	ROSETTES
5Y 9/3.0	5Y 9/2.0	10YR 7.5/2.0	10YR 7.5/2.0

Note: There are traces of a medium reddish brown paint on the flat outer edges of the window and door trim moulding in at least three different places (top corners). That paint appears to have very small sand grains in it. There is not enough evidence to draw conclusions about its use in an overall color scheme.

THIRD PERIOD: c. 1944 - 1959

CEILINGS	TRIM MOULDINGS	CEILING	ROSETTES
5Y 8.5/1.0	10YR 8.5/0.5	5Y 9/0.5	5Y 9/0.5

Note: This paint layer, like the First Period paint, also has had a thin linseed oil applied over it, with some signs of microscopic dirt or dust under the oil.

FOURTH PERIOD THROUGH EIGHTH PERIOD: 1959 - PRESENT

WALLS	TRIM MOULDINGS	BANDS	CEILING	ROSETTES
5B 8/1	5B 9/1	5B 5/2 *	5B 9/1	5B 8/1

Note: Commercial Pratt and Lambert/custom color chips are on file for these three colors at the Abraham Lincoln Memorial Visitor Center.

*5B 5/2 is one of the regular color series, *not* a Nearly Neutral.

EXISTING CONDITIONS OF INTERIOR & EXTERIOR FINISHES

The following conditions were observed during the site visit of October 15-17, 1998. Photographs show typical view of most of the problems. General recommendations are included with the statements of conditions. However, the white and black mycelia webs do not show in the photographs. It proved impossible to collect samples in coin envelopes because the exceedingly fine mycelia simply disintegrated. Thus, they could not be brought to a higher power microscope to determine if there were any spores formed. It is possible that they are simply the remains of previously active growths. Still, they should be examined in situ by a knowledgeable scientist.

INTERIOR

Walls:

On the north walls there is plaster covering the areas where four marble plaques were installed originally. The plaster covering was applied in the 1959 work. It seems to be intact, but perhaps with a rougher texture than the walls originally presented. Wall areas on all four sides above the neck moulding are, *except* where patched, smoother than the north wall. Photographs show where various cracks seem to be worth monitoring.

Cornice and neck moulding:

The cornice and neck moulding have been patched and repaired repeatedly. In some areas, only the paint layers reveal that work has been done but in many other areas, especially in the northwest, northeast, and southeast comers (where water damage may have been most devastating and frequent) the repair work is clumsy. Profiles were not run using an accurate template mounted on a “horse” in the craftsmanlike manner.

On cornice and ceiling along the south wall, especially at the southeast corner, there is fine white mycelia growth. Some colonies are in circles; others are growing along hairline cracks in the paint. In addition, there are small dots or “freckles” of rust stain, condensation droplets, indicating that water is migrating over metal work somewhere. The growth continues along the west wall, and in the northwest comer. There is also a hairline crack from the southwest corner ceiling coffer down through all of the cornice to the wall. It does not show up in the wall plaster, however. It was interesting to notice that “stalactites” of dissolved and redeposited soluble salts were clearly visible on the column capitals at the south east and south west exterior corners of the building. The same sort of material was evident on the stone at the base of the southeast corner column.

Window and door trim:

These mouldings are sound for the most part. However, like all of the neat and trim original moulding profiles which exist, they have been compromised by the thick spray coating which underlies the 1983 paint job. A good metaphor for their appearance is “like melting ice cream.” All crisp clean profiles have been muted.

On much of the trim and mouldings mentioned above, the paint build-up and/or the thick coating under it has blistered. When the building is repainted, and loose material is removed, it will be difficult but very important to have surface preparation done which carefully removes all unevenness--i.e., sand down the edges where heavy build-up meets bare substrate.

On the high window sills on the south wall, and on the southern window sills on the west and east walls, there are signs of condensation. Long drip marks show that water condensed at the upper end of the sloped sills and then ran down.

Ceiling (all elements except skylight frame):

A few fine hairline cracks exist in the ceiling, but do not seem to be in a pattern which indicates dangerous conditions at this time. Mapping and monitoring and recording them in a regular and systematic manner would be a good idea, however. The thick spray coating mentioned above (“Window and door trim”) has gathered in drips at the ends of all downward curving points on the rosettes. While this is not a condition that endangers the plasterwork and probably is not noticed by visitors to the building, it nevertheless adds to the general degrading of the original well-defined surfaces, mouldings, and details of plasterwork on the interior.

Bronze sash, doors, door frames:

These elements all have a dark coating over the original warm light slightly reddish-golden brown patina. On the doors the coating is wearing off to show dull yellow bronze in various areas. It may be that an oil coating was applied at some point, after a protective coat (acrylic?) began to wear off.

It would be good to restore the original appearance of the bronze. As a contributing element, adding the warm and rich look of patinated bronze, not a dull blackish mottled surface, would enhance the interior’s aesthetic dignity. The dark coating could be removed, especially where it is most heavily built-up.

Bronze wall grilles:

These are dull and dirty. Cleaning and polishing them would restore their original look.

Bronze stanchions and chains

These seem to be the original stanchions and chains. They are part of the architect's design intent. The posts should be straightened and either cleaned and polished and protected, to let the wear of the years show, or repatinated. to match the rest of the bronze. The chains should be treat in the same manner as the posts.

Miscellaneous items:

The marble throughout the interior shows various signs of damage and unsightliness. The baseboards are gouged and scraped by the hubs and brakes of staging rolled along, possibly by floor waxing machines. The wainscot and door trim is dulled by the general wear of time, perhaps by some slight air pollution, by coatings (brush marks can be seen when a raking light is used in many areas). The floor wax has splashed up on the marble wainscot.

It would be good to clean and repolish the marble. The deeper scratches and gouges would have to be honed out before repolishing.

After repolishing, no protective coating should be applied. Rather, the marble should simply be cleaned with a mild detergent (or a conservatorial non-ionic detergent) and water, dried with a chamois cloth, and if necessary, buffed with a lambswool buffer to bring up the polish again. Keeping the light level low is necessary to preserve and prolong the life of the logs. Elevating interior illumination a little by brightening the bronze and polishing the marble would add to the aesthetic of respect the interior design inspires.

It is interesting to try to imagine what the light stone colors would contribute to the interior's appearance. It is also intriguing to factor in the use of an oil "glaze" on the stone colors, which would give more reflectance. Such a treatment was in effect during two different times in the history of the Memorial Building.

No painted surfaces were found on the exterior walls. The skylight was not examined as access to the roof was restricted.

Bronze plaques at the north (ADA) entry:

These two plaques are now black with corrosion showing in a few areas. They should be cleaned and restored by a metals conservator. Special care should be taken to preserve the original texture of the metal ground behind the lettering.

Bronze vent grilles:

These have a fairly uniform coating of verdigris corrosion. At this point, they could be gently cleaned and the verdigris left in place. There does not appear to be significant or rapid deterioration.

EXTERIOR

No painted surfaces were found on the exterior walls. The skylight was not examined as access to the roof was forbidden.

Bronze plaques at the north (ADA) entry:

These two plaques are now black with corrosion showing in a few areas. They should be cleaned and restored by a metals conservator. Special care should be taken to preserve the original texture of the metail ground behind the lettering.

Bronze vent grilles:

These have a fairly uniform coating of verdigris corrosion. At this point, they could be gently cleaned and the verdigris left in place. There does not appear to be significant or rapid deterioration.

All of the following photographs were taken by Sara B. Chase. All except the photomicrographs were taken on site at the Abraham Lincoln Memorial on October 16 and October 17, 1998.

Figure 1. View of picture moulding repair work in the northeast corner. Note poor resolution of profile.

Figure 2. Cornice repair work along the north wall. Again, note poor repair of moulding profile.

Figure 3. View of crisp profile of cornice which has not been repaired, or, if repaired, was done using a proper template.

Figure 4. Photomicrograph of brown coating suggests possible sanded paint, to replicate brownstone, perhaps. The thickness, texture, and inharmonious color may be reasons why it was mostly removed.

Figure 5. Poor plaster repairs of mouldings in northwest corner.

Figure 6. View across ceiling showing drips (“stalactites”) of sprayed-on recent thick coating.

Figure 7. View of ceiling rosette showing drips of sprayed-on thick coating. Typical of all ceiling rosettes.

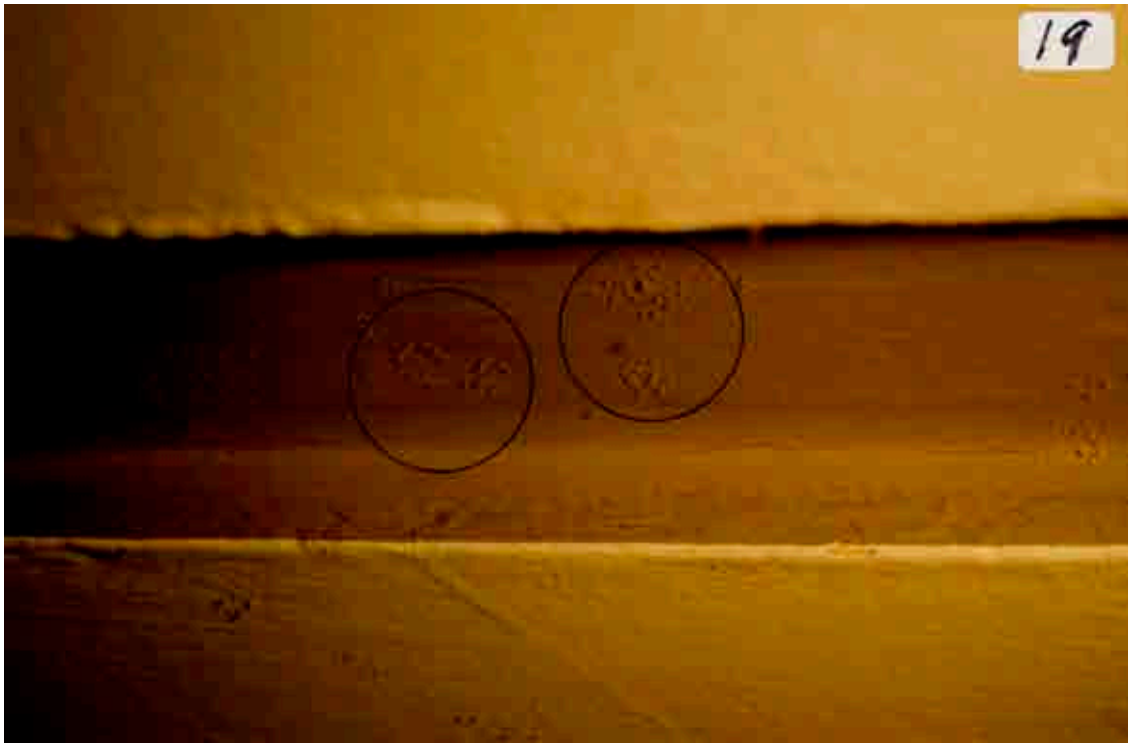


Figure 8. View of mycelia colonies on ceiling in southeast corner. Difficult to photograph.

Figure 9. View of typical east/west wall window, showing bronze interior frame. Note sloppy paint work.

Figure 10. Severe deterioration of coatings and patina, typical on edges of all bronze doors.

Figure 11. Unexplained damage on hinge side of south bronze door.

Figure 12. Photomicrograph of small cross section of paint with darkest blue showing at left. Shows thick white coating under blue, then two other blues, then pale soft rosey cream, gray, stone colors.

APPENDIX H

Material Information & Presevation

THE DODDS GRANITE COMPANY

814 PERSHING SQUARE BUILDING
1 PERSHING SQUARE
NEW YORK CITY

1034 BUILDERS' BUILDING
228 NORTH LA SALLE ST. AT WACKER DRIVE
CHICAGO, ILLINOIS

PARTIAL LIST OF

PROMINENT MEMORIAL WORK ERECTED IN STONY CREEK GRANITE

Battle Monument, West Point, N. Y. Largest monolith column in the United States. 41'-6" long, 6'-0" diameter. Shown on page 40, Modern Memorial Art.

Commemorative Monument. Sault Ste. Marie, Michigan. Fifteenth Anniversary of opening of St. Mary's Canal. Monolith shaft of Stony Creek Granite, 54'-0" long, 6'-0" square at bottom. Largest obelisk shaft in the United States. Shown on page 40, Modern Memorial Art.

Republics Monument, Jackson Park, Chicago, Illinois. Erected on site of Administration Building, World's Columbian Exposition. Henry Bacon, Architect, Daniel Chester French, Sculptor.

Gen. Wm. T. Sherman Memorial, Central Park, New York City. McKim, Mead & White, Architects, Augustus St. Gaudens, Sculptor. Shown on page 38, Modern Memorial Art.

Frederick The Great Memorial, War College Grounds, Washington, D. C. The gift of the German Emperor to the United States.

The Treaty Monument, Capitol Grounds, Jefferson City, Mo. Egerton Swartwout, Architect, Karl Bitter, Sculptor, Adolph A. Weinman, Associate.

LaFayette Monument, Prospect Park, Brooklyn, N. Y. Henry Bacon, Architect, Daniel Chester French, Sculptor.

Roosevelt Memorial, Santiago, Cuba. Henry Bacon Architect, James E. Fraser, Sculptor.

Senator George Frisbie Hoar Memorial, Front of City Hall, Worcester, Mass.

Fitchburg War Memorial, Fitchburg, Mass. Herbert Adams, Sculptor, Charles A. Platt, Architect.

Admiral George Dewey Memorial, Front of South Station, Boston, Mass.

Lincoln Memorial, Grant Park, Chicago, Illinois. McKim, Mead & White, Architects, Augustus St. Gaudens, Sculptor.

Gen. Joe Hooker Statue, front of State House, Boston, Mass.

Baldwin Memorial, Spring Garden Street Parkway, Philadelphia, Pa. Founder of Baldwin Locomotive Works. Herbert Adams, Sculptor.

Greenwich, Connecticut War Memorial. Charles A. Platt, Architect.

Titanic Memorial, Washington, D. C. Mrs. Harry Payne Whitney, Sculptress.

The Honorable Tom L. Johnson Monument, Cleveland, Ohio.

Lincoln Memorial, London, England. George Grey Barnard, Sculptor.

Gen. William F. Draper Monument, Public Square, Milford, Mass. Henry Bacon, Architect. Daniel Chester French, Sculptor. Shown on page 38, Modern Memorial Art.

The Honorable Joseph Choate Monument, Salem, Mass. J. Massey Rhind, Sculptor.

Memorial Pylons, Philadelphia, Pa. Lord & Hewlett, Architects.
McKim, Mead & White, Architects.

McMillan Fountain, Washington, D. C. Herbert Adams, Sculptor.

Marcus A. Hanna Monument, Cleveland, Ohio. Prof. Herman Matzen, Sculptor.

William Cotter Maybury, Grand Circus Park, Detroit, Michigan.

The Honorable John Hay Monument, Cleveland, Ohio.

William Lloyd Garrison Monument, Boston, Mass.

Alger Fountain, Grand Circus Park, Detroit, Michigan.

Gen. Palmer Memorial, Colorado Springs, Colorado. Nathan D. Potter, Sculptor.

Mayor William Gaynor Memorial, Brooklyn Plaza of the Manhattan Bridge, Brooklyn, N. Y. Adolph A. Weinman, Sculptor.

Washington Irving Memorial, Irvington-on-the-Hudson, Charles A. Platt, Architect, Daniel Chester French, Sculptor.

Pierce Anderson Memorial, Graceland Cemetery, Chicago, Illinois. Late member of the firm of Graham, Anderson, Probst & White, Architects, Chicago, Illinois.

Phillips Brooks Memorial, North Andover, Mass. Bela Pratt, Sculptor.

Exeter, N. H. War Memorial, Henry Bacon, Architect, Daniel Chester French, Sculptor.

Eternal Light Flag Pole Pedestal, Madison Square, New York City. Carrere & Hastings, Architects. Gift of Rodman Wanamaker.

Winchester, Mass. War Memorial, Charles A. Platt, Architect, Herbert Adams, Sculptor.

White Memorial, Lakeview Cemetery, Cleveland, Ohio. Professor Herman Matzen, Sculptor. Founder of White Sewing Machine Co. and White Motor Car Company. Shown on page 10, Modern Memorial Art.

Bowman Monument, Springfield Cemetery, Springfield, Mass.

Samuel J. Tilden Memorial, 112th St. & Riverside Drive, Wilder & White, Architects, William Ordway Partridge, Sculptor.

Alexander Hamilton Memorial, front of Treasury Building, Washington, D. C. James E. Fraser, Sculptor, Henry Bacon, Architect.

Gov. Franklin Murphy Memorial, Henry Bacon, Architect, J. Massey Rhind, Sculptor. Weequahic Park, Newark, N. J.

Work Memorial. For the family of The Honorable Hubert Work, Secretary of Interior. Arlington Cemetery, Washington, D. C.

Dr. Edward Mott Moore Memorial, Father of the Park System, Rochester, N. Y. McKim, Mead & White, Architects.

Rockefeller Fountains, Tarrytown, N. Y.

Soldiers' Monument, Athens, Pa.

Sheridan Monument, Albany, N. Y.

Richmond Monument, Richmond, Virginia.

Princeton Monument, Princeton, N. J.

McKinley Memorial, Adams, Mass. Shown on page 39, Modern Memorial Art.

Warren M. Lewis Memorial, Fairhope Cemetery, Richmond.

Fredericksburg Monument, Fredericksburg, Pa.

Charter Oak Monument, Hartford, Conn.

Pottstown War Memorial, Pottstown, Pa.

Lincoln Memorial, Louisville, Ky. George Grey Barnard, Sculptor.

Leslie & Kather[illegible] Dodds
39 Highland St.
Hopedale, Mass., 01747

Oct. 16, 1980.

We are back In Mass. and have been going through some of the things here. We haven't found the negatives of the Memorial at Hodgenville in the boxes yet. they are not in the place where they are supposed to be.

In the list of negatives in the files the numbers are;

759 - Lincoln Memorial (large), Hodgenville, Ky. McKim, Mead, and White - Archts.

762 - " " (small), " 2 " " " "

762 - " " (med.), " " " " " "

I suggest that yôu contact Mr. Bone at their offices in Xenia, Ohio.

Dodds Monument Co.
123 W. Main
Xenia, Ohio. 372-4408 (the codeis not on the card.)

The Memorial was built from Stony Creek Granite so we are sending a few things we found in connection with it, also a small piece of Stony Creek Granite.

We hope these are of some use to you.

Sincerely,

Leslie A. Dodds
& Katherine Dodds

MILFORD PINK GRANITE

1. Name of owner --- THE DORUS GRANITE COMPANY.
   Location of Quarry --- Milford, Mass.

2. Chemical analysis of stone --- See Attached List.

3. Crushing strength --- 20,000 lbs. per cubic inch.

4. Cubic foot value of quarry blocks at quarry --- $1.10 and upwards per cubic foot.

5. Freight rate to New York City per hundred pounds --- 20¢ for rough or dressed granite not polished in carload lots. 25¢ for polished granite in carload lots. 36,000 lbs. minimum carload.

6. Area of quarry operated --- six acres. *

7. Capacity of quarry output per cubic foot per year --- 175,000 cu.ft.

8. Number of derricks operated on quarry and capacity of same --- three. (one derrick one hundred tons, one derrick seventy-five tons, and one derrick twenty-five tons.)

9. Size of cutting plant --- Milford, Mass. Plant 500 feet long and eighty feet wide. **

10. Average number of men employed --- one hundred seventy-five men.

OTHER INFORMATION THAT WILL BE OF INTEREST TO AN ARCHITECT OR OWNER:

* Total acreage, 155 acres.
This quarry produces stone in any size to the limits of transportation.

** This Cutting Plant equipped with 2 Same Electric Cranes (one 40-ton and one 20-ton capacity), 2 Gang Saws, 2 Carborundum Machines, 3 Polishing Machines, 1 Pendulum Polishing Machine, 3 Granite Turning Lathes, 3 Granite Polishing Lathes, and 12 Surfacing Machines. Power Plant operated with hydro-electric power, 3 electric-driven air Compressors in simple units (2 twin Ingersoll-Sargent Compressors, capacity of each 1200 feet free air per minute, and 1 Sullivan Compressor, capacity 730 feet free air per minute). Also two steam-driven Compressors with boiler for emergency use. All quarry derricks operated by air through an 8" air line from main Power Plant. Blacksmith shop equipped with Fixie Tool Sharpening Machine.

These quarries formerly owned and operated by the Norcross Bros. Co. and the Milford Pink Granite Quarries Company.

SiO_2	(Silica)	76.07
Al_2O_3	(Alumina)	12.67
Fe_2O_3	(Iron sesquioxide)	2.00
FeO	(Iron oxide)	none
MgO	(Magnesia)	0.10
CaO	(Lime)	0.85
Na_2O	(Soda)	3.37
K_2O	(Potash)	4.71
S	(Sulphur)	none
MnO	(Manganese oxide)	0.03
H_2O	(Water)	none
H_2O	(Water uncombined at 110)	none
H_2O	(Ignition water comb.)	none
P_2O_5	(Phosphorous Pentoxide)	none
Absorption		negligible
Crushing Test Strength Per Cu. In.		29,000 lbs.

GENLIME GROUP, L.P.
CERTIFICATION OF MATERIAL

10-5-93

Post-it™ brand fax transmittal memo 7671 | # of pages ▸ 1

To Joe Davis	From Wendy Kimble
Co./Dept. Clay Drafts	Co. GenLime Group
Dept.	Phone #
Fax # 606-259-0938	Fax # 419-855-4602

JMBER:

ARAL CONTRACTOR:

JB CONTRACTOR:

e the undersigned certify that the following material supplied by us omplies with the requirements and tests of the American Society of esting Materials and cited Federal Specifications as stated below and s so guaranteed by us.

FINISH LIME

Grand Prize Finish Lime	ASTM C-206-84 (Reapproved 1992), Type N Federal Spec. SS-L-351B, TYPE F
Ivory Finish Lime	ASTM C-206-84 (Reapproved 1992), Type S Federal Spec. SS-L-351B, TYPE F ASTM C-207-91 (Reapproved 1992), Type S Federal Spec. SS-L-351B, TYPE M
Snowdrift Finish Lime	ASTM C-206-84 (Reapproved 1992), Type S Federal Spec. SS-L-351B, TYPE F ASTM C-207-91 (Reapproved 1992), Type S Federal Spec. SS-L-351B, TYPE M

MASONS LIME

Mortaseal Mason's Lime	ASTM C-207-91 (Reapproved 1992), Type S Federal Spec. SS-L-351B, TYPE M
Bondcrete Air-Entrained	ASTM C-207-91 (Reapproved 1992),Type SA Federal Spec. SS-L-351B, TYPE M

from Bill Love

By Michael J. Yake
Michael J. Yake
Director Of Technical Services

GenLime Group, L.P.
P.O. Box 158
Genoa, Ohio 43430
(800)-537-4489

My commission expires _____

1 of 1

United States Department of the Interior

NATIONAL PARK SERVICE

ABRAHAM LINCOLN BIRTHPLACE NATIONAL HISTORIC SITE
2995 LINCOLN FARM ROAD, HODGENVILLE, KENTUCKY 42748

RECIPE FOR STAIN REMOVAL
(Memorial Building)

1 lb. oxalic acid (Quick Kleen)

1 Gallon of Water

Mix with clay (preferably white clay) consistency of toothpaste.

Brush on a minimum of two coats. Let Dry. Rinse with 50 lbs. psi water pressure.

Clay from Brickyard Pottery
4721 W. 16th Street
Speedway, Indiana 46222

50 lb. bag of Clay

United States Department of the Interior FEB 2 0 1975

NATIONAL PARK SERVICE
SOUTHEAST REGIONAL OFFICE
3401 WHIPPLE AVENUE
ATLANTA, GEORGIA 30344

IN REPLY REFER TO:

H34-SER-PC

FEB 1 9 1975

Lincoln Birthplace	Info	Date
Superintendent	AC	2/21
Admin. Asst.		
Park Ranger		
Technicians		
Maintenance		

SERO Informational

Memorandum

To: All Superintendents, Southeast Region

From: Acting Chief, Cooperative Activities Division, Southeast Region

Subject: Cleaning methods for bronze landmark plaques

We learned from Frank Ugolini that landmark owners sometimes want to know how to clean bronze plaques. If an owner asks, here's how:

1. A good scrubbing with a stiff brush and a good quality cleanser, such as can be found in grocery stores;

2. To brighten the bronze border and lettering use a good quality metal polish if it is needed;

3. The plaques come coated with a clear methacrylate laquer which, in time, deteriorates; scrubbing and polishing also will help remove this coating. If desired, after cleaning and polishing, apply a coat of clear laquer from an aerosal can or from a conventional paint sprayer.

The above cleaning hints come from Michaels Art Bronze Company, Box 688, Covington, Kentucky 41012. Michaels also suggests that plaques may be removed from their mountings and sent to them for a factory refinish. This includes sandblast cleaning, chemically darkening the background, and polishing the letters and borders. We suggest owners contact them for the price of a factory finish.

CONSERVE AMERICA'S ENERGY

Save Energy and You Serve America!

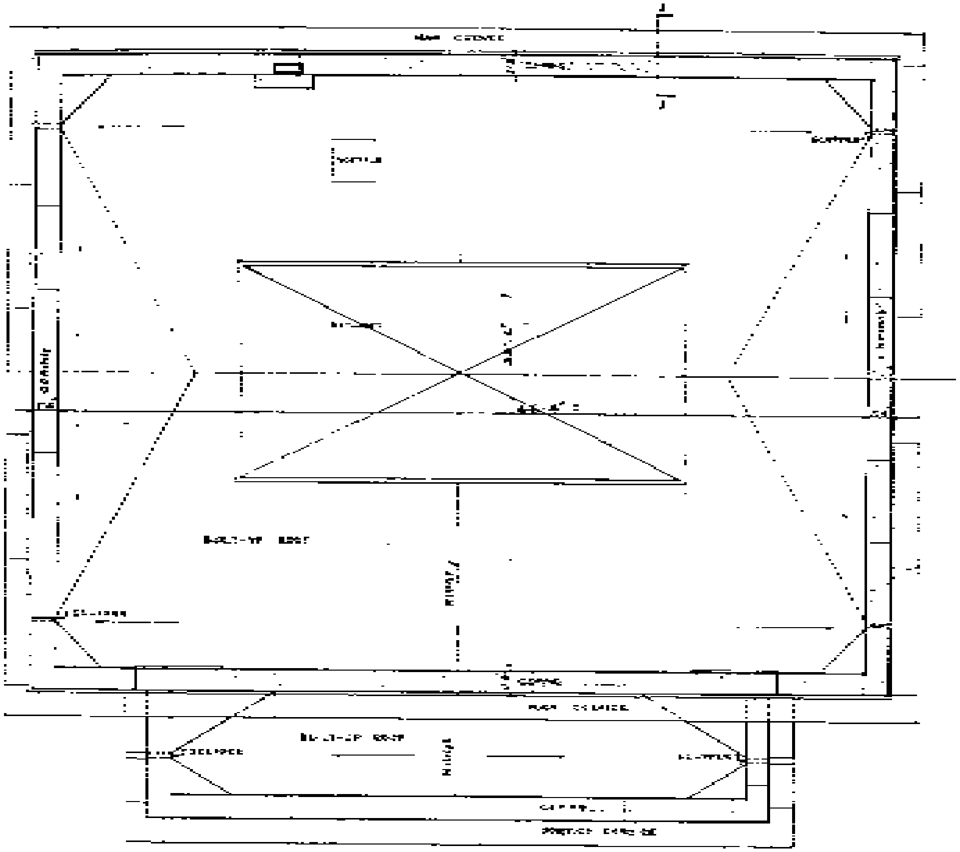
FORMULA FOR LOG CABIN CHINKING

1 Part Granulated Salt (coarse table salt)

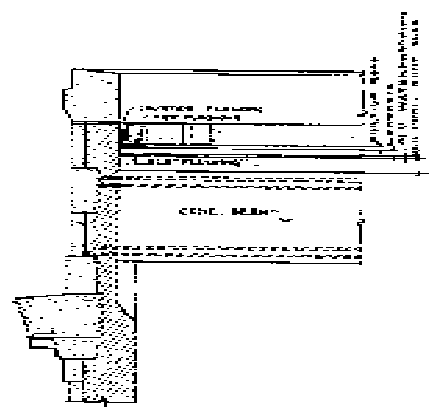
10 parts clay (low sand content)

Add water in amount to produce mix having the consistency of a thick mortar mix.

Construction Records



ROOF PLAN



SECTION A-A

HALF-SIZE REPRODUCTION

SCALE: AS NOTED

CONSTRUCTION SERVICE
OFFICE OF THE QUARTERMASTER GENERAL

THE NEW ROOF OVER THE
LINCOLN BIRTHPLACE MEMORIAL BLDG
AT HODGENVILLE KY.

6725-3

AL-9002

NATIONAL PARK

Hodgenville, Kentucky

April 15, 1949

MEMORANDUM for the Superintendent,
Mammoth Cave National Park.

Reference is made to Regional Director Allen's memo-
randum of April 4 relative to the removal of the two plaques which
contained information about the parents of Abraham Lincoln in the
Memorial Building at Abraham Lincoln National Historical Park.
These two plaques were plastered over around 1940 with the intention
that they would be removed and new plaques cut which would correct
the errors so apparent in the old ones. The above mentioned memo-
randum requested the recommendations of Coordinating Superintendent
Hoskins and of Historical Aide Davis.

During Mr. Hoskins visit to Abraham Lincoln National His-
torical Park April 12, he and Historical Aide Davis discussed Mr.
Allen's memorandum. The following recommendations were made at
that time:

1. Remove the plaque bearing the excerpt from the Fell Auto-
biography.

2. Use this space and the space to be made available by the
intended removal of the adjacent plaque bearing the in-
scription pertaining to Thomas Lincoln for the complete
Fell Autobiography. It was the general opinion that the
two plaques would be sufficient space to carry the full
autobiographical statement.

3. Use the space on the extreme right which, now covered over,
contained the inscription to Nancy Hanks Lincoln for a new
plaque bearing the latest and the most reliable information
about both Thomas Lincoln and Nancy Hanks Lincoln. It was
agreed that the statement prepared by Regional Historian
Appleman in 1940, with revisions, would be suitable for
this plaque.

Benjamin H. Davis

Benjamin H. Davis,
Historical Aide

In triplicate.

1. Federal Supply Schedule.
2. Bureau of Federal Supply Stock
3. Excess Property Transfer
4. Advertising (R. S. § 3709).
5. Other Exemption from R. S. § 3709.
6. Miscellaneous.
(See Bureau of Federal Supply Circular No. 89)

UNITED STATES
DEPARTMENT OF THE INTERIOR
NATIONAL PARK SERVICE

PURCHASE ORDER

THIS NUMBER MUST APPEAR ON ALL PACKAGES AND PAPERS RELATING TO THIS ORDER

ORDER NO. AL-10

DATE FEBRUARY 20, 1959

☐ SMALL BUSINESS ☐ OTHER BUSINESS

REQUISITION NO.

POINT OF ISSUE: Hodgenville, Kentucky

APPROPRIATION SYMBOL AND TITLE: 14X1035 Construction, NPS, Buildings and Utilities, Abraham Lincoln

ACCOUNT: B-1 ABLI

TO SELLER:
George F. Clark
228 College Street
Elizabethtown, Kentucky

CONSIGNEE AND DESTINATION (SHIP TO):
Superintendent
Abraham Lincoln Natl. Historical Park
Route #1, Hodgenville, Kentucky

INVITATION NO. — CONTRACT NO. —

TIME FOR DELIVERY: immediate

DISCOUNT TERMS: —

F.O.B. POINT: —

SHIP VIA: —

GOV'T B/L NO. —

ITEM NO.	ARTICLES AND SERVICES	QUANTITY	UNIT	UNIT PRICE	AMOUNT
1	Furnish labor and material to remove old plaster, and plaques, and plaster interior walls in the Memorial Building; in accordance with specifications furnished all bidders for this job.				
	For the complete job	1	job	$1185	$1,185.00

All [illegible] completed [illegible] [illegible] completed [illegible] at request of contractor. SF 1034 - [illegible] issued 3-20-59 for partial payment of $1,000.00.

Completed — [illegible]
SF 1034 issued
for [illegible]

TOTAL $1,185.00

Receipt on ______ (DATE) is hereby acknowledged of your Purchase Order, of which this is a copy.

[illegible] (NAME OF SIGNATURE OF VENDOR)

By ______ (SIGNATURE)

Title

SIGNATURE: [signature]

NAME AND TITLE: Ernest L. Wright, Jr., Superintendent

IMPORTANT.—Vendor must sign and mail this acknowledgment to "Point of Issue" immediately upon receipt of the original purchase order.

Delivery will be made on or about ______, 19

ACKNOWLEDGMENT COPY

(2)

Repairs and Alterations to Memorial Building
at Abraham Lincoln National Historical Park

GENERAL

The work shall be in accordance with the following specifications and two diagramatic sketches of the Memorial Building on file in the Office of The Park Superintendent.

All materials and workmanship mentioned hereinafter shall be the best of their respective kinds and shall be subject to approval of the Contracting Officer.

The work shall be carried out expeditiously, without interference with the operation of the building, and in conjunction with other activities in the building, all as directed by the Contracting Officer. Barricades and protection shall be provided to safeguard all visitors in the building. A protective covering shall be placed over the cabin for protection against dust, dirt and debris. During the operations, the debris shall be confined to the working areas and shall be removed as soon as each phase of the work is completed.

Adequate and proper scaffolding shall be provided for the accomplishment of the work. At the completion of the work all construction material, equipment and debris shall be removed from the premises and the building swept clean.

REMOVE PLAQUES AND FILL IN OPENINGS

Four marble plaques on the north wall of the building shall be removed. Care shall be taken to leave undisturbed the plaster moulding around these plaques and if damaged, the moulding shall be restored to its original shape and condition.

The holes in the wall left by the removal of the plaques, shall be filled to within one inch of the finished wall with cement mortar and prepared for the application of plaster.

REMOVE PLASTER

All plaster shall be removed from the flat walls and panels from the marble wainscot to the ceiling cornice. The neck band shall also be removed.

The portions of plaster that shall not be removed are the mouldings, that surround the doors, windows and panels and the returns into the windows.

After the old plaster is removed, the exposed brick walls shall be brushed with wire brushes to clean the surfaces in preparation for re-plastering.

In removing the plaster, saw cuts shall be made where the flat panels adjoin the mouldings and care shall be taken not to disturb the mouldings in the removal of the plaster.

Any portions of the mouldings where the final coat of plaster is loose, shall be cleaned of loose plaster and made ready for later application of patching plaster.

PLASTER

All exposed areas shall be plastered with three coats-scratch, brown and finish coats. Total plaster thickness shall be as required to finish new plaster on the same plane as original plaster. Plaster shall be gypsum plaster, U. S. Company's Red Top or approved equal. Plaster shall be mixed in accordance with manufacturer's recommendations. The finish coat shall be fibre free gypsum plaster mixed with approximately 2 parts of fine sand to one part of plaster applied not less than 1/8" thick and steel troweled to a smooth finish. Mixes shall be approved by the Contracting Officer. Sand shall be clean and sharp and free from organic material. Water shall be clean and potable.

The surfaces of the mouldings that need to be patched shall be adequately prepared and patched with pliable filling material or approved patching plaster. All cracks in the mouldings and ceiling shall be enlarged with a sharp, wedge shaped tool and the cracks filled with the above material.

The neck band that is to be removed shall be replaced with a neck band of the same contour. The contractor has the option of using precast plate.

CEMENT FLOOR IN CABIN

A cement topping, approximately 1½" thick shall be placed over the area within the cabin. The existing surface shall be washed with a strong solution of lye to remove all grease and dirt and then washed clean with clear water.

The floor shall be roughened by hacking and before application of the cement topping the floor shall be given a coat of Weld-Cret, or other approved bonding material, applied in accordance with manufacturer's recommendation.

The topping shall be a mixture of 1 part Portland cement to approximately 3 parts of aggregates. The aggregates shall be a mixture of sand and local red clay that has been dried and pulverized. The finished floor shall similate packed earth. The topping shall be troweled to raise the earth color for final finish.

Samples of the topping shall be prepared using different proportions of earth and sand materials until an acceptable sample is agreed upon for use for the entire floor.

The topping shall be reinforced with chicken wire embedded therein.

This contractor shall arrange with the electrical contractor to install a conduit in the floor before the cement topping is placed.

IN REPLY REFER TO:
D3415

UNITED STATES
DEPARTMENT OF THE INTERIOR
NATIONAL PARK SERVICE
Division of Eastern Office
Philadelphia 6, Pa.

January 5, 1959

Memorandum (AIR MAIL)

To: Superintendent, Abraham Lincoln National Historical Park

From: Acting Chief, EODC

Subject: Color Schedule and Suggested Lighting Changes, Memorial Building

We are attaching herewith, two (2) copies of the suggested color scheme for the redecorating of the interior of the Memorial Building. We have clearly marked on the drawings where the colors are to be applied to the walls and ceiling of the building.

1. Ceiling: Three colors shall be applied; paint shall be equal to Lyt-All Flowing Flat, as manufactured by Pratt and Lambert, Inc.

Try half white & Pearl gray

   a. "Fresno Blue" - a mixture of 1 part "Delft Blue" and 4 parts "White". (Pearl Gray)

   b. "Silver Blue" - a mixture of 1 part "Delft Blue" and 2 parts "White".

   c. "Delft Blue" - a standard color.

2. Walls and Trim: Two colors shall be applied; paint shall be equal to Lyt-All Flowing Flat, as manufactured by Pratt and Lambert.

   a. "Fresno Blue" - a mixture of 1 part "Delft Blue" and 4 parts "White".

   b. "Silver Blue" - a mixture of 1 part "Delft Blue" and 2 parts "White".

Three samples of each color (~~4"x12" cut in half, send one Set to EODC~~)
1st. 4 parts white
2nd. 2 parts white, 2 parts pearl white
3rd. 4 parts pearl white

Designing a new lighting system for the Memorial has proven to be quite difficult.

Our first attempt was to use a combination of 150 watt spot and flood lights mounted on the walls to bathe the cabin and ceiling with light. We decided not to use a cove light for the ceiling because installing a cove could be considered as altering the interior architectural design for which we could be criticized particularly since the building was done by a foremost architect, John Russell Pope.

The trouble with spot and flood lights is that it is impossible to avoid looking into them at some time as the visitor walks around the cabin and as he looks up at the decorative details of the Memorial Building walls and ceilings.

Our next thought was to find out what experts in the lighting of similar interior exhibits would do. We contacted Mr. George C. A. Barbour, General Superintendent of the Philadelphia Museum of Art. The Philadelphia Museum recently opened a new Far Eastern Wing where a Japanese structure is extremely well displayed.

They used an over-all luminous ceiling--no spots or floods. We cannot use an over-all luminous ceiling because we are concerned with changing the architecture of the building, but we can produce a similar effect by remodeling the existing skylight lighting.

It is interesting to note that Mr. Barbour has been to Abraham Lincoln and remembered conditions quite well. Here are his suggestions which we think worthwhile.

1. Remove existing lighting in skylight. Close off natural light by installing a smooth ceiling about four feet above the existing lower glass. Line or smooth side walls as necessary, thus producing a giant light plenum or reflector. Paint the entire interior surface of this plenum white.

2. Install banks of cool white fluorescent lights in plenum.

3. Replace lower skylight glass (we think it is blue) with a colorless, translucent glass or plastic.

4. Install one hanging lamp from the center of a rosette in each of the four corners to bring up the level of illumination there.

We have figured that it will take 30 - 4', single tube,

The attached sketches indicate suggested manufacturers, load, wire sizes, etc.

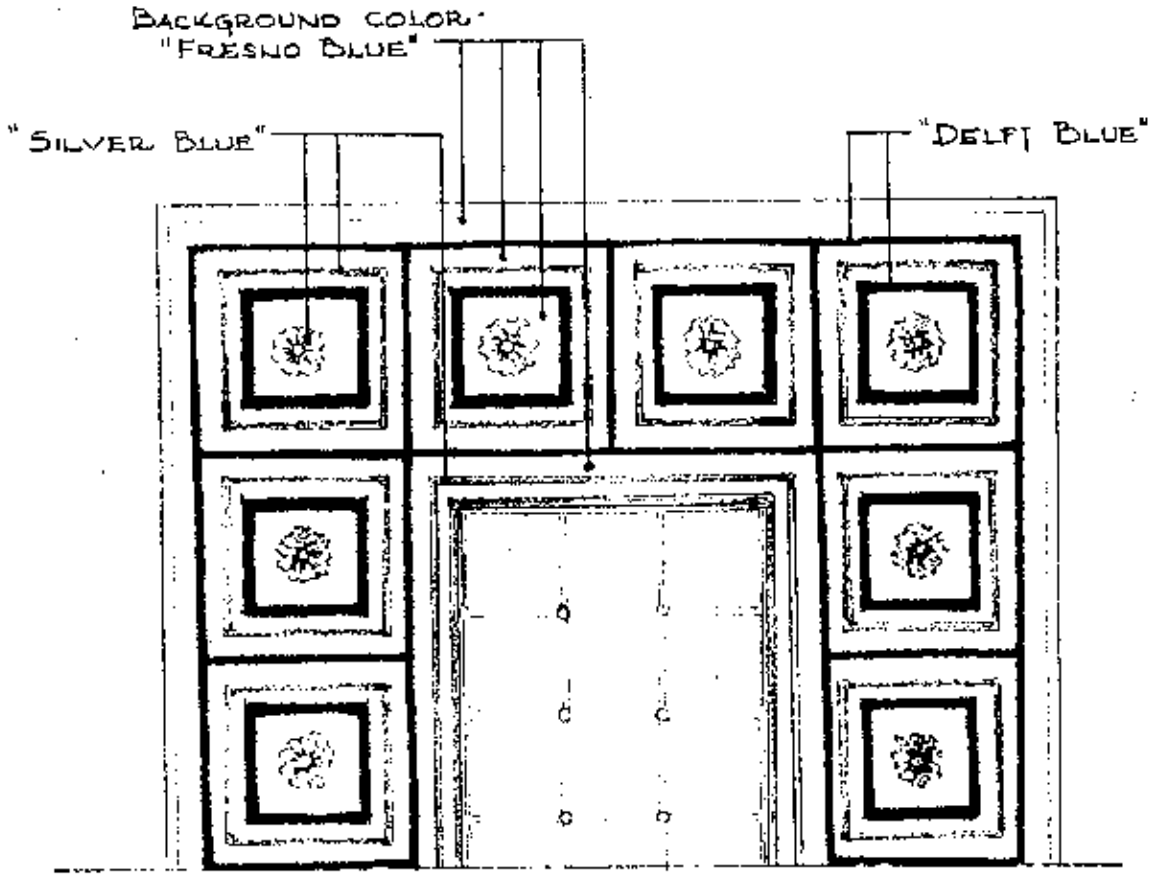
Since there are so many unknown details of construction, you will have to investigate existing conditions carefully to find what problems will arise, and call in a local electrical contractor for an estimate.

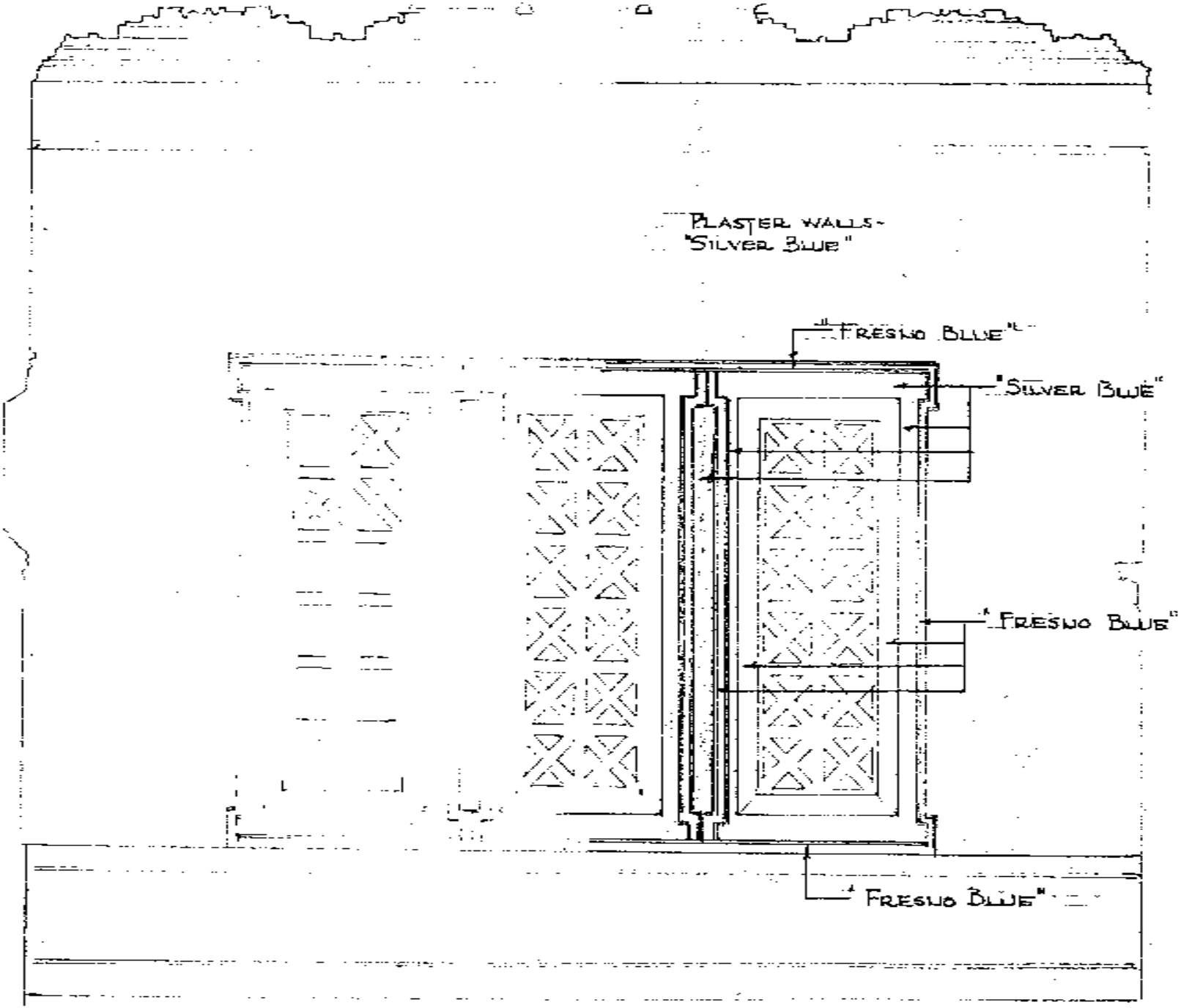
H. Cornell

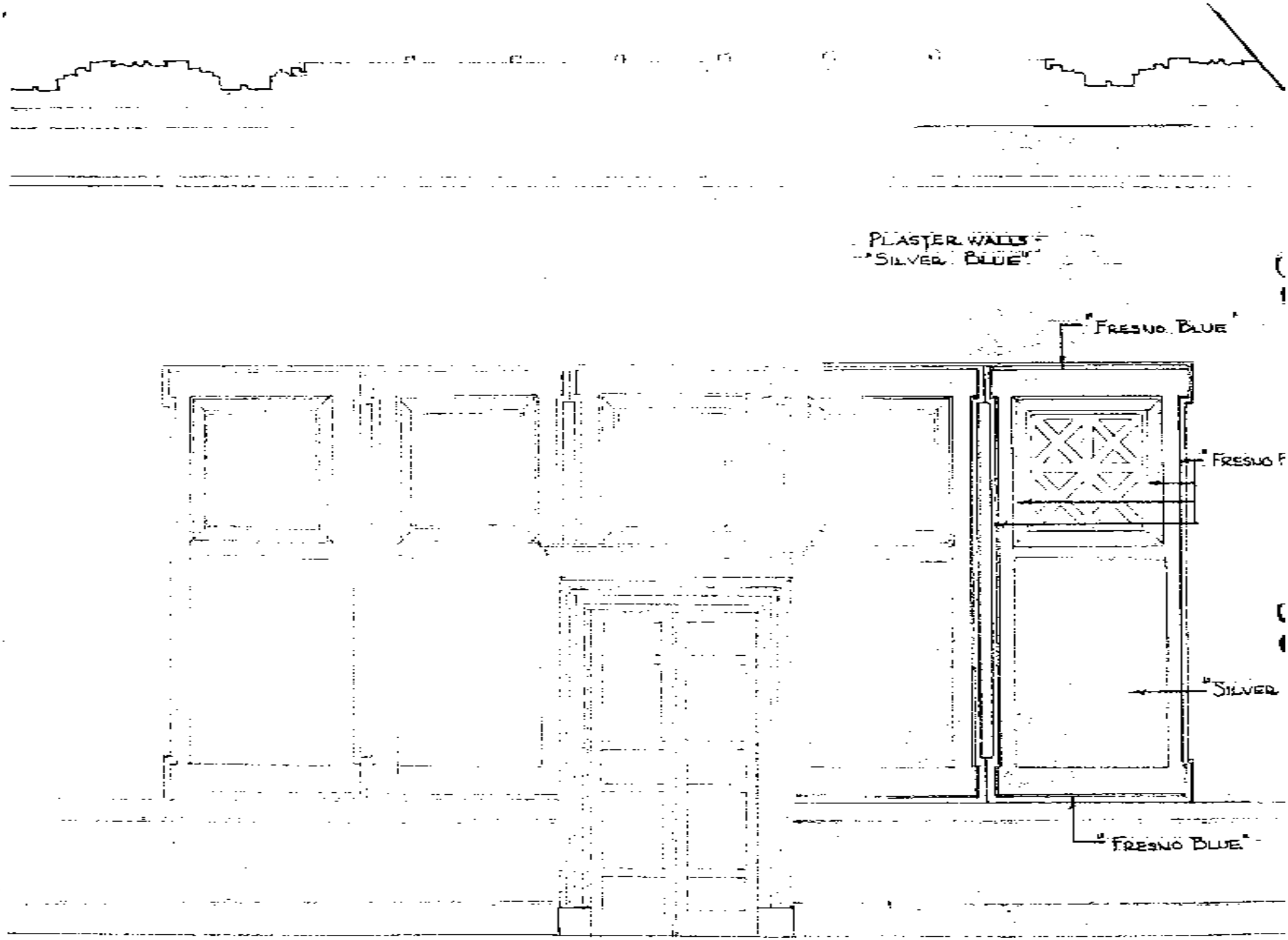
Harvey H. Cornell
Acting Chief

Attachments (in duplicate)

Copy to: Regional Director, Region One, w/prints & schedule


BACKGROUND COLOR
"FRESNO BLUE"
"SILVER BLUE"
"DELFT BLUE"


PLASTER WALLS -
"SILVER BLUE"
"FRESNO BLUE"
"SILVER BLUE"
"FRESNO BLUE"
"FRESNO BLUE"


PLASTER WALLS
"SILVER BLUE"
"FRESNO BLUE"
"FRESNO
"SILVER
"FRESNO BLUE"

Indicate Method by Number
1. Federal Supply Schedule
2. Bureau of Federal Supply Stock
3. Excess Property Transfer
4. Advertising (R. S. § 3709)
5. Other Exemption from R. S. § 3709
6. Miscellaneous.

The Bureau of Federal Supply Symbol No. 8130

☐ SMALL BUSINESS ☐ OTHER BUSINESS

REQUISITION NO

ACCOUNT
B-1 ABLI

UNITED STATES
DEPARTMENT OF THE INTERIOR
NATIONAL PARK SERVICE

PURCHASE ORDER

THIS NUMBER MUST APPEAR ON ALL PACKAGES AND PAPERS PERTAINING TO THIS ORDER

ORDER NO
AL-11

DATE
March 16, 1959

POINT OF ISSUE
Hodgenville, Kentucky

APPROPRIATION SYMBOL AND TITLE
14X1035 Construction, NPS, Buildings and Utilities
Abraham Lincoln

TO
SELLER

Logan Bennett Company
222 East Main Street
Hodgenville, Kentucky

CONSIGNEE AND DESTINATION
SHIP TO

Superintendent
Abraham Lincoln Natl. Historical Park
Route #1, Hodgenville, Kentucky

INVITATION NO

CONTRACT NO

F. O. B. POINT

SHIP VIA

TIME FOR DELIVERY
immediate

DISCOUNT TERMS

GOV'T B/L NO

ITEM NO	ARTICLES AND SERVICES	QUANTITY	UNIT	UNIT PRICE	AMOUNT
1	Furnish all equipment, labor and materials to construct wood frame plenum above ceiling skylight of Memorial Building; in accordance with specifications furnished all bidders for this job. For the complete job	1	job	$487.77	$487.77
	Job completed 3/27/59 and SF 1034 - Voucher prepared same day.				
				TOTAL	$487.77

Receipt on _____ (DATE) is hereby acknowledged of your Purchase Order, of which this is a copy.

By Logan Bennett Co. (NAME OF SIGNATURE OF VENDOR)
(SIGNATURE) J. Logan Bennett

IMPORTANT.—Vendor must sign and mail this acknowledgment to "Point of Issue" immediately upon receipt of the original purchase order.

(Signed)
SIGNATURE

NAME AND TITLE
Ernest L. Wright, Jr.
Superintendent

Delivery will be made on or about _____, 19

NPM 10-13a
Rev. 2/52

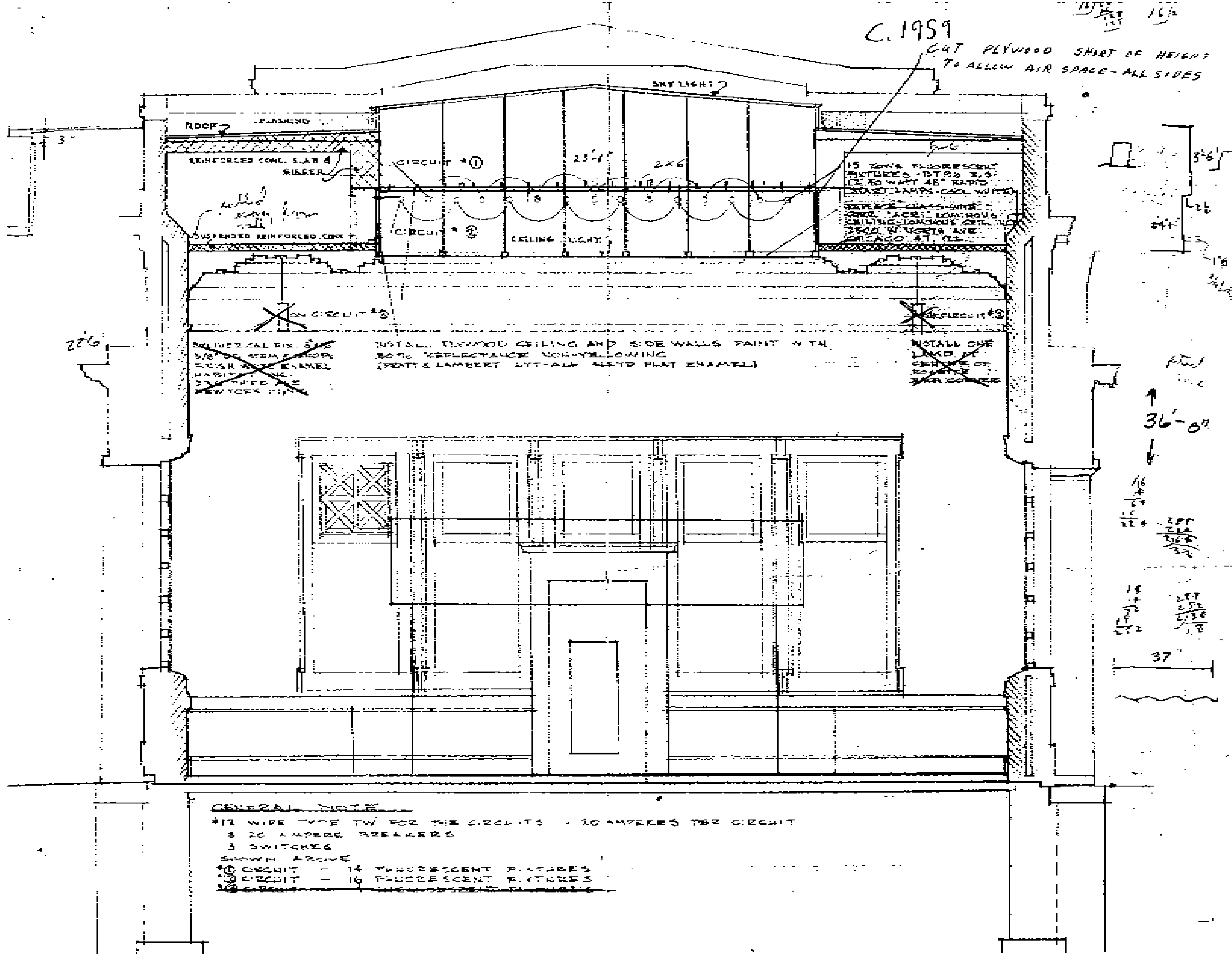
ACKNOWLEDGMENT COPY

(2)

CARPENTRY

Wood frame plenum shall be constructed above the ceiling skylight frame as shown on sketches. 2X6 Ceiling joists shall be placed 18" on centers, placed symmetrically from the center line, and supported by 2 X 4 studs, 18" on centers. Single top and bottom plated shall be used. The ends of the plenum may have stud spacing of 24". The walls and ceiling shall be finished with $\frac{1}{2}$" plywood, one side of which shall be smooth and paintable. One access door of plywood over wood frame shall be installed in the side of one partition. It shall be complete with hinges and latch. The end plywood panels shall be three inches less than the height of the framing to provide ventilation of the plenum.

Lumber shall be kiln dried, straight and structurally sound.


C.1959
CUT PLYWOOD SHORT OF HEIGHT TO ALLOW AIR SPACE - ALL SIDES
SKY LIGHT
ROOF
FLASHING
REINFORCED CONC. SLAB & GIRDER
SUSPENDED REINFORCED CONC.
CIRCUIT #1
CIRCUIT #2
CEILING LIGHT
23'-1"
2x6
15 TWIN FLUORESCENT FIXTURES
ON CIRCUIT #3
INSTALL PLYWOOD CEILING AND SIDE WALLS PAINT WITH
80% REFLECTANCE NON-YELLOWING
(PRATT & LAMBERT LYT-ALL ALKYD FLAT ENAMEL)
INSTALL ONE LAMP AT CENTER OF ROSETTE EAR CORNER
22'6"
36'-0"
37"
3'6"
3"
GENERAL NOTES
#12 WIRE TYPE TW FOR THE CIRCUITS - 10 AMPERES PER CIRCUIT
3 20 AMPERE BREAKERS
3 SWITCHES
SHOWN ABOVE
#1 CIRCUIT - 14 FLUORESCENT FIXTURES
#2 CIRCUIT - 16 FLUORESCENT FIXTURES

c. 1959

1. Federal Supply Schedule
2. Bureau of Federal Supply Stock
3. Excess Property Transfer
4. Advertising (R. S. § 3709)
5. Other Exemption from R. S. § 3709
6. Miscellaneous.

UNITED STATES
DEPARTMENT OF THE INTERIOR
NATIONAL PARK SERVICE

PURCHASE ORDER

PACKAGES AND PAPERS

ORDER NO. AL-12

DATE March 16, 1959

[ ] SMALL BUSINESS [ ] OTHER BUSINESS

REQUISITION NO

POINT OF ISSUE: Hodgenville, Kentucky

APPROPRIATION SYMBOL AND TITLE: 14X1035 Construction, NPS, Buildings and Utilities Abraham Lincoln

ACCOUNT: B1 - ABLI

TO:
Hughes & Johnson Electric
920 W. Main Street
Glasgow, Kentucky

CONSIGNEE AND DESTINATION:
Superintendent
Abraham Lincoln Natl. Historical Park
Route #1, Hodgenville, Kentucky

INVITATION NO: -

CONTRACT NO: -

TIME FOR DELIVERY: immediate

DISCOUNT TERMS: -

F.O.B. POINT: -

SHIP VIA: -

GOV. B/L NO: -

ITEM NO	ARTICLES AND SERVICES	QUANTITY	UNIT	UNIT PRICE	AMOUNT
1	Furnish all equipment, labor and materials to install an electric lighting system in plenum chamber above ceiling skylight in Memorial Building, and in Birthplace Cabin; in accordance with specifications furnished all bidders for this job.				
	For the complete job	1	job	$889.63	$889.63
	Completed 4/16/59 and [illegible] paid same day.				
				TOTAL	$889.63

Receipt on 3/19/59 (DATE) is hereby acknowledged of your Purchase Order, of which this is a copy.

Hughes & Johnson Electric
(NAME OR SIGNATURE OF VENDOR)

By Charles M. Hughes
(SIGNATURE)

Title Partner

SIGNATURE (Signed)

NAME AND TITLE
Ernest L. Wright, Jr.
Superintendent

IMPORTANT: Vendor must sign and mail this acknowledgment to "Point of Issue" immediately upon receipt of the original purchase order.

Deliveries will be made on or about 4/16 , 1959

ACKNOWLEDGMENT COPY

(2)

ELECTRIC LIGHTING

Furnish all equipment, labor and materials for an electric lighting system installed in a plenum chamber above the ceiling skylight in the Memorial Building. The plenum of wood frame and plywood faces will be installed by others. This contractor shall furnish and install the electrical work and the luminous ceiling.

The lighting system shall consist of two circuits, as indicated on diagramatic sketch, numbered Circuit #1 and Circuit #2. Circuit #3 is not to be installed. A triple gang switch shall be located inside the cabin as directed. Two switches shall control the two light circuits and the third switch shall be connected to the existing circuit to the fireplace.

The present lighting system and glass ceiling panels are to be dismantled and removed from the premises. The existing switch leg and related installation shall be removed. Any usable materials may be reused if approved, the other material becoming the property of the contractor.

The fixtures shall be BT96 R.S. (2 - 40 watt 40" rapid start lamps in tandem) Color - cool white. Fixtures shall be mounted on ceiling of plenum.

The ceiling diffusers shall be "ACRI" Luminous panels similar and equal to those made by Luminous Ceilings, Inc., 2500 W. North Avenue, Chicago, Illinois. Panels shall be sufficiently strong to span 37", the size of 21 square openings in the ceiling skylight framing. Each panel shall be of one piece of material.

D3415

June 17, 1959

Memorandum

To: Regional Chief of Operations, Region One

From: Superintendent, Abraham Lincoln NHP

Subject: Memorial Building Doors, and Sand Urns

Thank you for your memorandum of June 12, giving us contacts of possible firms who might repair the bronze doors of the Memorial Building, also prices and firms to contact in securing the sand urns.

We were able to contract for the sand urns through the Keith Monument Company of Elizabethtown, Ky. A purchase order has already been issued.

After canvassing all known bronze workers in Louisville, we finally were able to get the Schiller Hardware Company to do the work. This work is now in progress. We were given a maximum price, but could not obtain the exact price because it was impossible to determine all work to be needed until the actual work is done. The maximum price of $700.00 was given.

Work orders are being submitted.

Ernest L. Wright, Jr.
Superintendent

and are Marked by Number —

1. Federal Supply Schedule
2. Bureau of Federal Supply Stock
3. Excess Property Transfer
4. Advertising (R. S. § 3709)
5. Other Exemption from R. S. § 3709
6. Miscellaneous

(See Bureau of Federal Supply Circular No. 1305)

☐ SMALL BUSINESS ☐ OTHER BUSINESS

REQUISITION NO

ACCOUNT

B-1 ADLI

UNITED STATES
DEPARTMENT OF THE INTERIOR
NATIONAL PARK SERVICE

PURCHASE ORDER

NUMBER MUST APPE
PACKAGES AND PA
RELATE TO THIS ORDER

ORDER NO.

AL-20

DATE

June 25, 1959

POINT OF ISSUE

Hodgenville, Kentucky

APPROPRIATION SYMBOL AND TITLE

14X1035 Construction, NPS, Buildings and Utilities
Abraham Lincoln National Historical Park

TO

SELLER

Schiller Hardware
213 West Market Street
Louisville, Kentucky

CONSIGNEE AND DESTINATION

SHIP TO

Superintendent
Abraham Lincoln Nat'l. Historical Park
R. R. #1, Hodgenville, Kentucky

INVITATION NO. | CONTRACT NO. | DELIVER, INCO | DISCOUNT TERMS

immediate

F. O. B. POINT | SHIP VIA | GOVT B/L NO.

ITEM NO.	ARTICLES AND SERVICES	QUANTITY	UNIT	UNIT PRICE	AMOUNT
	Furnish all equipment, labor and materials for completely renovating two (2) 900 pound bronze entrance doors of the Memorial Building. Doors shall be removed where necessary, and all work done to assure proper balance. The two (2) front doors shall be fitted with receptacles for greasing. Furnish and install new master keyed locks throughout, and renovate or replace, where necessary, eight (8) door handles. For the complete job	1	job	700.00	700.00
				TOTAL	700.00

Receipt and ... (DATE) ... is hereby acknowledged of your Purchase Order, of which this is a copy.

By ... (NAME OF SIGNATURE OF VENDOR) ... (SIGNATURE)

SIGNATURE

NAME AND TITLE

Ernest L. Wright, Jr.
Superintendent

NT. -Vendor must sign and mail this acknowledgment to "Point ..." immediately upon receipt of the original purchase order.

Delivery will be made on or about ... , 19

ACKNOWLEDGMENT COPY

(2)

Hodgenville, Ky. 42748

(ISSUING OFFICE)

VENDOR'S NAME AND ADDRESS

Addie S. French, Inc.
217 S. Main St.
Elizabethtown, Ky. 42701

SHIP TO: (Consignee and Address:)

Abraham Lincoln Birthplace
Hodgenville, Ky.

CONTRACT NO.
14-10-1-990-636

DELIVERY TERMS | DISCOUNT TERMS | SHIP VIA

SHIPPING POINT | TIME FOR DELIVERY | GOVT. B/L NO.

ITEM NO.	ARTICLES OR SERVICES	QUANTITY ORDERED	UNIT	UNIT PRICE	AMOUNT
1.	Furnish and install Air Conditioning Mechanical Equipment in Memorial Building at Abraham Lincoln Birthplace NHS.	1	Job	$13,600	$13,600
				TOTAL	$13,600

THE ARTICLES OR SERVICES LISTED WERE RECEIVED ON _____ (DATE)

AND ACCEPTED ON _____ (DATE) _____, RECEIVING REPORT NO: _____

SIGNATURE _____

12/09

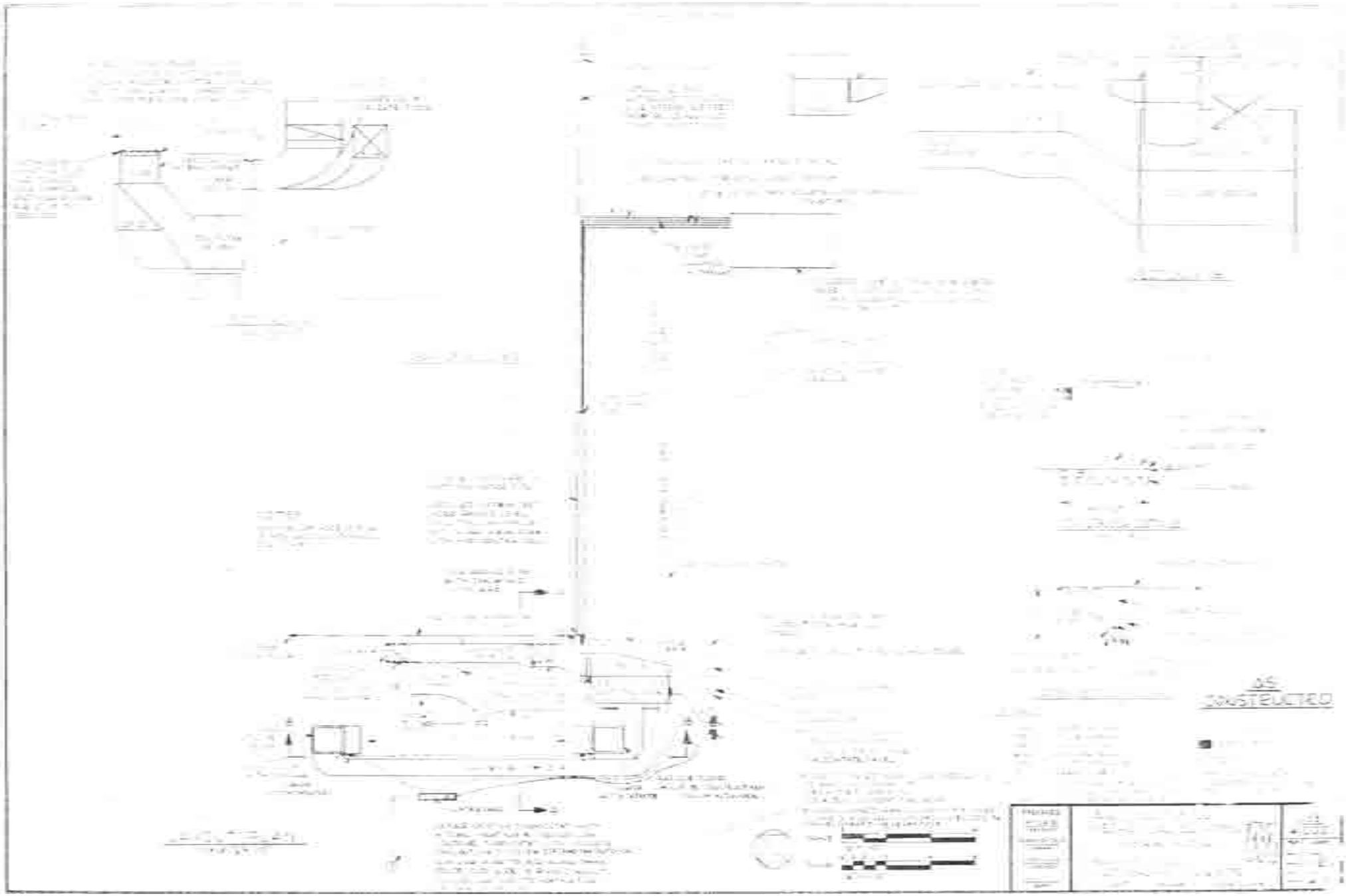
rec report sent

SIGNATURE Andrew M. Loveless

NAME AND TITLE

Andrew M. Loveless, Superintendent ING OFFICER

2A. RECEIVING REPORT


AS
CONSTRUCTED

[redacted], Kentucky 42717

[redacted] (ISSUING OFFICE)

VENDOR'S NAME AND ADDRESS	SHIP TO: (Consignee and Address)
Central Glass Co. 4702 Pinewood Road Louisville, Kentucky 40211	Abraham Lincoln Birthplace National Historical Site RFD 1 Hodgenville, Kentucky 42748

CONTRACT NO.	DISCOUNT TERMS	SHIP VIA
—	—	deliver

DELIVERY: F.O.B.	TIME FOR DELIVERY	GOVT. B/L NO.
A Lincoln Park, Hodgenville, Ky. SHIPPING POINT	30 days	NA

ITEM NO.	ARTICLES OR SERVICES	QUANTITY ORDERED	UNIT	UNIT PRICE	AMOUNT
1.	Furnish labor and material and install new aluminum entrance unit at Memorial Building, Lincoln Birthplace, NHS, Hodgenville, Ky. Unit shall be one (1) 4'-10 x 7'-0 Kawneer #350 aluminum doors and 5'-2 x 9'-11½" frame with hardware, all in medium bronze #28 finish and glazed with tempered clear glass 1/4" thickness and polished plate 1/4" glass for transom area. The installation shall be identical to the front entrance and the supplier is responsible for all dimensions upon which he bases his fabrication. All in accordance with quotation dated 9/30/71.	1	LS		$815.00

Tax Exempt Purchaser - Fed. Gov't.

Offers for quotes sent to the following with no response:

Ky. Mirror & Plate Glass Co.
822 W. Main St.
Louisville, Ky.

Louisville Plate Glass Co.
1401 West Broadway
Louisville, Ky.

	TOTAL	$815.00

THE ARTICLES OR SERVICES LISTED WERE RECEIVED ON 2/4/72 (DATE)

AND ACCEPTED ON 2/4/72 (DATE) RECEIVING REPORT NO:

SIGNATURE: [signature]

SIGNATURE: Glendon D. Miller

NAME AND TITLE: Glendon D. Miller
General Supply Specialist
PURCHASING OFFICER

2A. RECEIVING REPORT

[redacted] (ISSUING OFFICE)

1338:0050A-25

VENDOR'S NAME AND ADDRESS
Hodgenville, Ky. 42748
Kentucky Utilities Company
Divisional Office
2nd Street & Broadway
Danville, Kentucky 40422

SHIP TO: (Consignee and Address:)
Superintendent
Abraham Lincoln Birthplace NHS
Route 1
Hodgenville, Kentucky 42748
Mail Building

CONTRACT NO.	DISCOUNT TERMS	SHIP VIA
-	-	-

DELIVERY: F.O.B.	TIME FOR DELIVERY	GOVT. B/L NO.
SHIPPING POINT -	-	-

ITEM NO.	ARTICLES OR SERVICES	QUANTITY ORDERED	UNIT	UNIT PRICE	AMOUNT
1.	Install 600 feet underground 12,470 volt primary extension to a pad-mounted transformer adjacent to the Lincoln Memorial Building. Kentucky Utilities Company will provide primary conduit, primary cable, pad-mount transformer 120/240 volt (3) three phase 4-Wire and 240 volt metering to be located at a mutually agreeable location. Cost differential for (3) three phase underground primary as to overhead primary.	1	Job		$2,400.00
	Tax Exempt Purchaser - Fed. Gov't.				
				TOTAL	$2,400.00

THE ARTICLES OR SERVICES LISTED WERE RECEIVED ON 10/07 (DATE)

AND ACCEPTED ON _____ (DATE) RECEIVING REPORT NO: _____

SIGNATURE: HAA

SIGNATURE: Darwin E. Williams

NAME AND TITLE Darwin E. Williams
Administrative Officer
PURCHASING OFFICER

2A. RECEIVING REPORT

STATEMENT IN COMPLIANCE WITH SECTION 106 OF THE NATIONAL HISTORIC PRESERVATION ACT OF 1966. POINTING OF STONE STEPS LEADING TO MEMORIAL BUILDING FRONT ENTRANCE, ABRAHAM LINCOLN BIRTHPLACE NATIONAL HISTORIC SITE, HODGENVILLE, KENTUCKY.

I. PROPOSED UNDERTAKING

It is proposed that all joints of the 56 steps to the front of the Memorial Building be cleaned in approved fashion and repointed with a suitable caulking compound. The same procedure will be used to replace the asphalt sealer used on the joints around the gravel surfaced rectangles at the stair landings. The work will be done under specifications established by National Park Service historical architects.

II. PROPERTY INVOLVED

The proposed undertaking would occur within Abraham Lincoln Birthplace National Historic Site near Hodgenville, Kentucky. The park contains 116.5 acres, all of which is listed in the National Register of Historic Places. Approximately 100.5 of these acres are part of the original 300 acre Sinking Spring Farm which was once owned by Thomas Lincoln. It was on this farm that Abraham Lincoln was born on February 12, 1809. Key historic elements of the park in addition to the land itself are a stone memorial building containing the traditional birthplace cabin, a limestone "sinking" spring which was the namesake of the Lincoln Farm, and the remains of a large white oak which served as a corner marker of the farm property.

The specific feature to be involved in the proposed undertaking is the Memorial Building. This formal marble and granite building was designed by John Russell Pope and constructed to house the traditional birthplace cabin. President Theodore Roosevelt laid its cornerstone in 1909, and President William Howard Taft dedicated the building two years later. The building along with the cabin inside are the key features of the park.

A series of 56 steps, one for each year of Abraham Lincoln's life, lead from the basin area in front of the building to the front door. The steps are constructed of solid granite blocks and each joint is pointed with a type of caulking or mortar. However, harsh winter conditions in the past two seasons have caused the joint material to break down. Many of the joints are now open and subject to moisture retention and further deterioration.

III. CORRECTIVE MEASURES

The existing filler material will be removed from all joints to a minimum depth of 3/4 inch using hammers and small chisels. The existing caulking is a cement type mortar which is brittle and very poorly bonded. Spot checks indicated that hand removal would be the easiest and most effective method. The spot checks also revealed that it would be necessary to clean to depths greater than 3/4 inches in places in order to have a sound base for new application. Each step has a total of 4 cross joints plus one continuous joint at the bottom of the front edge.

Once the old caulking is removed the joints will be thoroughly flushed with potable water under pressure and brushed to remove any silt or other material which would interfer with a good bond. Following cleaning, the joints will be filled with a latex bonding admixture (Sikamix 13], Latex, or equal). Treatment of the asphalt joints on the landings will be similar.

Cleaning of the joints can be done effectively by members of the Young Adult Conservation Corps unit located within the park. They will also do the repointing under close supervision to insure compliance with procedures and neatness standards.

IV. THE EFFECT

The proposed corrective procedures should block water percolation which can now occur at the weathered joints of the Memorial Building steps. It should also improve the appearance of the steps by eliminating the weathered joint conditions which are readily visible to everyone. These benefits can be obtained without making any changes in the historic structure itself and are essential as part of the maintenance needs of the facility.

Replacement of the present asphalt joint sealer being used on the stair landings will result in a more attractive appearance by avoiding the black asphalt line which is not in keeping with the appearance and workmanship exhibited elsewhere around the Memorial Building. The joint filler proposed for this job should create a bond equal to the one now provided by the asphalt.

Kentucky Heritage Commission
404 Bridge Street
Frankfort, Kentucky 40601

June 26, 1978

Mr. Neal B. Guse, Jr.
Acting Regional Director
U. S. Department of the Interior
National Park Service, Southeast Region
1895 Phoenix Boulevard
Atlanta, Georgia 30349

Dear Mr. Guse:

Thank you for your letter of June 6, 1978 regarding the proposed repointing of the stone steps leading to the front entrance of the Memorial Building at Abraham Lincoln Birthplace National Historic Site. I concur with your determination of no effect regarding this project.

If I may be of further service to you, please call upon me.

Sincerely yours,

Mrs. Eldred W. Melton
Executive Director
State Historic Preservation Officer

STATEMENT IN COMPLIANCE WITH SECTION 106 OF THE NATIONAL HISTORIC PRESERVATION ACT OF 1966. REPAIR AND PAINTING OF INTERIOR, MEMORIAL BUILDING, ABRAHAM LINCOLN BIRTHPLACE NATIONAL HISTORIC SITE, HODGENVILLE, KENTUCKY.

I. Proposed Undertaking

It is proposed that the interior surfaces of the Memorial Building be painted following the existing color scheme. The work will be accomplished by the Southeast Region Preservation Team. Surface preparation will include plaster patching and molding repair to return the base surface to its original form and eliminate visible indications of plaster separation.

II. Property Involved

The proposed undertaking would occur within Abraham Lincoln Birthplace National Historic Site near Hodgenville, Kentucky. The park contains 116.5 acres, all of which is listed in the National Register of Historic Places. Approximately 110.5 fo these acres are a part of the original 300 acre Sinking Spring Farm which was once owned by Thomas Lincoln. It was on this farm that Abraham Lincoln was born on February 12, 1809. Key historic elements of the park in addition to the land itself are a stone memorial building containing the traditional birthplace cabin and a limestone spring which was the namesake of the Lincoln Farm.

The specific feature to be involved in the proposed undertaking is the Memorial Building. This formal marble and granite building was designed by John Russell Pope and constructed to house the traditional birthplace cabin. President Theodore Roosevelt laid its cornerstone in 1909, and president William Howard Taft dedicated the building two years later. The building along with the cabin inside are the key features of the park.

The interior of the Memorial Building consists of a polished stone floor and stone lower wall. All surfaces above the 4 1/2 foot level consist of a plaster base which has been painted a pale blue with white trim. Extensive use of plaster molding was made on both the upper walls and ceiling. The present appearance does not meet desired standards due to discoloration of painted surfaces and extensive breakdown of plaster. The plaster damage exists throughout the building but especially areas around the windows.

III. Effects of Work

The proposed undertaking will result in no adverse changes to existing structural elements or appearance. The planned result will be an elimination of unsightly plaster damage and upgrading of appearance by applying fresh paint. The result should be a clean, well maintained appearance which will be in keeping with the original design intentions and with current operating standards.

Scaffolding will be required to repair and paint the ceiling and upper walls. All necessary safeguards will be taken to insure protection for the birthplace cabin during the entire procedure.

Kentucky Heritage Commission
104 Bridge Street
Frankfort, Kentucky 40601

December 15, 1976

David D. Thompson, Jr., Regional Director
United States Department of the Interior
National Park Service
Southeast Regional Office
1895 Phoenix Boulevard
Atlanta, Georgia 30349

Dear Mr. Thompson:

My staff and I have reviewed the proposal to repair and repaint the interior of the Memorial Building at Abraham Lincoln Birthplace National Historic Site, a site listed on the National Register of Historic Places. We concur with your assessment that this proposal will not effect this National Register site. Therefore, I have no objections to this project.

Thank you for writing; and, if I may be of further assistance, feel free to call on me.

Sincerely yours,

Eldred W. Melton

(Mrs.) Eldred W. Melton
Executive Director and State
Historic Preservation Officer

PURCHASE ORDER

UNITED STATES
DEPARTMENT OF THE INTERIOR
NATIONAL PARK SERVICE

ITEM NO.	ARTICLES OR SERVICES	QUANTITY ORDERED	UNIT	UNIT PRICE	AMOUNT
	Painting of the Interior of the Memorial Building (Contract Specifications attached)				$1,685.00
	Quotations received: H. W. McCorkle Painting Contractor Route 1 Rineyville, Ky 40162 ~~Low Bidder - Declined~~ Could not do ... James C. Puckett RFD # 1 Hodgenville, Ky $1685.00 Demmbrun & McCoy Sweeden, Kentucky $2487.00 Edward Cooper Painting, Inc. ~~Lexington, Kentucky~~				

THE ARTICLES OR SERVICES LISTED WERE RECEIVED ON 3-25-77 (DATE)
AND ACCEPTED ON 3-25-77 (DATE) RECEIVING REPORT NO:
SIGNATURE [signature]

TOTAL $1,685.00

SIGNATURE [signature]
NAME AND TITLE Nicholas J. Eason
Superintendent PURCHASING OFFICER

2A. RECEIVING REPORT

CONTRACT SPECIFICATIONS

ABRAHAM LINCOLN BIRTHPLACE NATIONAL HISTORIC SITE

PAINTING OF THE INTERIOR OF THE MEMORIAL BUILDING

Contractor will agree to meet the following specifications:

1. Furnish all labor, material, tips, and equipment to restore damaged sections of plaster wall and molding to original appearance.

2. To paint the interior of approximately 4,220 square feet of plaster walls and ceiling within the historic Lincoln Memorial Building. This will include all previously painted surfaces of the building interior.

3. Paint application is to consist of two (2) coats of plaster flat paint.

4. The historic cabin within the Memorial Building and adjacent floors and stone trim are to be physically protected from paint splatter.

5. Completion of paint project within fifteen (15) working days from start of job. Completion date not to exceed April 15, 1977.

6. Plaster is to be of a high quality acceptable by the Contracting Officer.

7. Paint is to be of a high quality nationally advertised brand acceptable to the Contracting Officer. Paint to be delivered in original sealed cans with labels intact. If requested a copy of the purchase receipt verifying the brands must be presented.

8. Bidder to match existing colors and demonstrate ability satisfactorily to the contracting officer.

9. All loose paint and plaster will be removed back to solid edges before plaster patching and spot priming. All scraping is to be inspected and approved by the contracting officer prior to application of new plaster or paint.

10. Surface preparation following removal of loose material is to include all plaster patching necessary to return patched areas to their original appearance and surface texture. Cracks in the plaster sub-coating are to be trimmed and filled prior to applying surface patching. All patch work is to be spot primed and inspected and approved by the contracting officer before actual painting begins.

11. The contractor upon acceptance of these specifications will be held responsible for obtaining, at his own expense, an experienced plasterer if he is unable to accomplish the patching as required.

12. Contractor will be responsible for his equipment and supplies while job is in progress. The park will make one scaffolding tower available for the duration of the job. All additional scaffolding required will be the responsibility of the contractor. Contractor will be held responsible for removing all empty containers and dispensible materials along with the rest of his equipment upon completion of the job.

13. Hours of work will be 8 - 5 daily, Monday thru Friday. Park visitors will be allowed entry into "non-work" sections of the building during the entire job. Equipment is to be stored out of the way on weekends so that visitors may obtain a full view of the birthplace cabin.

James C Puckett
Contractor

3-14-1977
Date

Nicholas J Eason
Contracting Officer

March 19, 1977
Date

D3415

April 27, 1959

Memorandum

To: Regional Director, Region One

From: Superintendent, Abraham Lincoln NHP

Subject: Information Desk, Seats and Urns for Memorial Building

In a recent phone conversation with the Regional Office, I was advised to procure the needed urns from the GSA catalog. A search of this catalog does not reveal such an item.

In connection with the subject project, Work Order B-2 ABLI dated 4/13/59 was issued in the amount of $320 per Region One Memorandum D3415 April 9, 1959 signed V. R. Ludgate, Acting Regional Chief of Operations; to cover Purchase Order No. 31-1817 dated April 7, 1959 for the procurement of 4 (walnut) wood benches.

The information desk, originally requested in marble, was deemed unnecessary after some reconsideration and a determination that the existing wood information desk might be used. During an inspection, last week, by Mr. John B. Cabot and Mr. D. O. Smith, both of EODC, and myself, Mr. Cabot suggested that the existing information desk in the Memorial Building be covered with a marble-like matching Formica which would fit the decor.

Since it was administratively determined by the Region One Office that an attendant should be on duty in the Memorial Building rather than enclosing the cabin in glass for protection purposes, we feel that some type of desk should remain in this building. Mr. Cabot's suggestion that we cover the existing desk with Formica would serve nicely in our opinion.

Ernest L. Wright, Jr.
Superintendent

FORM 10-133
(APRIL 1964)

PURCHASE ORDER

UNITED STATES
DEPARTMENT OF THE INTERIOR
NATIONAL PARK SERVICE

REQUISITION NO.

THIS NUMBER MUST APPEAR ON ALL PACKAGES AND PAPERS RELATING TO THIS ORDER

DATE OF ORDER: July 21, 1977

ORDER NO: PX554070111

ACCOUNTING CLASSIFICATION: 5540-115-2600 N

Abraham Lincoln Birthplace NHS
(ISSUING OFFICE)

VENDOR'S NAME AND ADDRESS

Ronnie Lee Chelf
Ronnie's Cabinet Shop
RFD 1
Hodgenville, KY 42748

SHIP TO: (Consignee and Address)

Superintendent
Abraham Lincoln Birthplace NHS
Route 1
Hodgenville, KY 42748

CONTRACT NO. | DISCOUNT TERMS | SHIP VIA

DELIVERY F.O.B. | TIME FOR DELIVERY | GOVT. B/L NO.

SHIPPING POINT

ITEM NO.	ARTICLES OR SERVICES	QUANTITY ORDERED	UNIT	UNIT PRICE	AMOUNT
	For construction of information counter for Memorial Building.				440.00
	Lock and Key				7.00
	Other Bids:				
	J.B.'s Cabinet Shop Inc, Box 105, Elizabethtown, KY $875.00				
	Lawson Cabinet Shop, Inc. Rt. 3, Hodgenville, KY. Declined to Bid.				
				TOTAL	447.00

THE ARTICLES OR SERVICES LISTED WERE RECEIVED ON 2-13-78 (DATE) AND ACCEPTED ON 2-13-78 (DATE)

RECEIVING REPORT NO.

SIGNATURE: Mary M. Brueck

SIGNATURE: Nicholas J. Eason

NAME AND TITLE: Nicholas J. Eason
Superintendent
PURCHASING OFFICER

2. A. RECEIVING REPORT

PURCHASE ORDER

UNITED STATES
DEPARTMENT OF THE INTERIOR
NATIONAL PARK SERVICE

Abraham Lincoln Birthplace NHS
(ISSUING OFFICE)

REQUISITION NO.

THIS NUMBER MUST APPEAR ON PACKAGES AND PA... RELATING TO THIS ORDER

DATE OF ORDER: 11/17/77

ORDER NO.: PX5540080030

ACCOUNTING CLASSIFICATION: 5540

VENDOR'S NAME AND ADDRESS
...s C. Puckett
...te #1
...odgenville, Kentucky

SHIP TO: (Consignee and Address)
Superintendent
Abraham Lincoln Birthplace NHS
Route 1
Hodgenville, Kentucky 42748

CONTRACT NO.	DISCOUNT TERMS	SHIP VIA

DELIVERY: F.O.B. SHIPPING POINT | TIME FOR DELIVERY | GOVT. B/L NO.

ITEM NO.	ARTICLES OR SERVICES	QUANTITY ORDERED	UNIT	UNIT PRICE	AMOUNT
	Painting roof light and bay of Memorial Bldg.				$72.00
				TOTAL	

THE ARTICLES OR SERVICES LISTED WERE RECEIVED ON 11/18/77 (DATE) AND ACCEPTED ON 11/18/77 (DATE)

RECEIVING REPORT NO:

SIGNATURE: Mary M. Giesecke

SIGNATURE: Nicholas J. Eason

NAME AND TITLE: Nicholas J. Eason
Superintendent
PURCHASING OFFICER

2. A. RECEIVING REPORT

106 STATEMENT

ABRAHAM LINCOLN BIRTHPLACE NATIONAL HISTORIC SITE

I. THE PROPERTY

The proposed undertaking would occur within Abraham Lincoln Birthplace National Historic Site near Hodgenville, Kentucky. The park contains 116.5 acres, all of which is listed in the National Register of Historic Places. Approximately 110.5 of these acres are part of the original 300 acre Sinking Farm which was once owned by Thomas Lincoln. It was on this farm that Abraham Lincoln was born on February 12, 1809. Key historic elements of the park in addition to the land itself are a stone memorial building containing the traditional birthplace cabin, a limestone spring which was the namesake of the Lincoln Farm, and the remains of a large white oak which served as a corner marker of the farm property.

The specific feature involved in this undertaking is the Memorial Building. This formal marble and granite building was designed by John Russell Pope and constructed to house the traditional birthplace cabin. President Theodore Roosevelt laid its cornerstone in 1909, and President William Howard Taft dedicated the building 2 years later. The building along with the cabin inside are key features of the park.

The Memorial Building roof currently exhibits evidence of leakage at various points along the interior walls. This leakage has resulted in extensive paint and plaster deterioration on upper wall sections which underwent plaster repair and repainting within the past year. Wall deterioration is expected to escalate, and plaster and paint repairs can not be made until the roof repairs are completed. An inspection by NPS historical architects revealed multiple problems involving deteriorated roof surface, metal flashing, downspouts and pointing of stones. The inspection also revealed that the original roof of 1909 was later covered with an additional roof slab in 1929. In recent years, minor repairs have been applied in an attempt to resolve the leakage.

II. THE UNDERTAKING

The National Park Service proposes to undertake preservation and stabilization work on the Memorial Building to arrest deterioration and render the structure safe for visitation. The following NPS standard will be followed in this work: "All projects involving specialized housekeeping, repair, rehabilitation, or replacement of structural components and projects involving techniques for arresting or slowing deterioration of the historic fabric and its historic environment are conducted under the directions of an historical architect or archeologist, as appropriate."

A. Roofs and Rainwater Disposal Systems

The existing deteriorated built-up roof is leaking, causing damage to interior plaster surfaces and needs to be replaced. The existing deteriorated roof covering of 1929 and flashing will be carefully removed. The structure will be reroofed and new flashing installed to match existing to render the structure weathertight.

Rainwater disposal systems have failed and will be repaired to carry water away from the building foundations.

B. Masonry Preservation

All deteriorated mortar joints of the parapet walls will be repointed to match existing to render the structure weathertight. All masonry components used for repairs will match existing in size, color, texture and physical properties.

The parapet walls will be cleaned of unsightly excessive tar used as waterproofing for earlier repairs.

III. THE EFFECT

The effect will be to place the structure in sound maintenance condition with minimal alteration to the historic fabric.

87217-SER-AC

SEP 1 6 1980

NOTICE OF AWARD
CONTRACT CX5000000956

McGuffey Industrial Contracting
Route 1, Box 452
Hodgenville, Kentucky 42748

Gentlemen:

We are pleased to announce that your bid submitted in response to our Invitation for Bids No. IFB 5000-80-56 for reroofing the Memorial building at Abraham Lincoln Birthplace National Historic Site, has been accepted by the United States Government in the amount of eight thousand five hundred and fifty two dollars ($8,552.00).

Before you may proceed with the work, you shall be required to furnish proof of workmen's compensation and liability insurance in accordance with paragraph 22 of the General Provisions (continued). An approved copy of the Contract will be returned to you upon receipt of these documents.

Before we issue the Notice to Proceed, we will arrange for a preconstruction conference to be held at a mutually agreeable time and date. Any questions regarding the specifications and related requirements will be answered at this time.

Sincerely yours,

Original Signed By
Keith Warner

Keith H. Warner
Contracting Officer

cc:
AC
AF
Supt., ABLI

May 1, 1981

Memorandum

To: Chief, Cultural Preservation Division, SER

From: Superintendent, ABLI

Subject: Completion of roofing and drain work, Memorial Building

The Memorial Building drain system was routed out on April 30 and now appears to be functioning as it should.

Inspection of the cast iron drains revealed that they extend three or four feet below ground level to an elbow bend which carried water directly away from the building. Indications are that they probably lead tp spme sprt pf dry well tp each side of the building.

Although there is no way of verifying it at this point, there has been some speculation that the underground drainage systems may be broken so that any runoff is channelled into eroded cavities located beneath the walkway around the building. This speculation comes from one of our maintenance employees. His information is based on remarks he recall from a long-retired maintenance employee who claimed to have knowledge of large hollow spaces under the walkway that encircles the building. In any case, we have not observed any sinking of the existing walkway or any basement leakage which would likely result from such problems.

We atill have a need to replace the stairwell cover at the rear of the building, to make safety improvements to the roof access ladder, and to consider modifications which would provide greater safety during cleaning and bulb changing operations in the skylight. Due to the difficulty in getting additional input from John McGuffey of McGuffyy Industrial Contracting, it appears that any efforts to correct these problems will have to come as separate items under independent consideraitons.

We are pleased with the work done to date on the Memorial Building. It looks like your recommendations and specifications may solve some very long running problems related to building preservation and maintenance.

Nicholas J. Eason

May 1, 1981

Nick Eason, ABLI

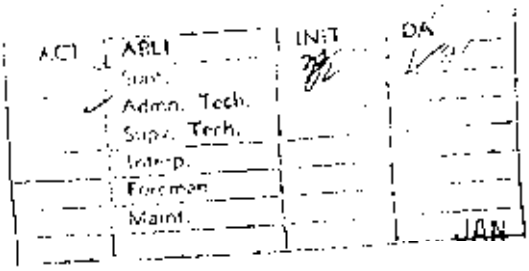
Drain Cleaning, Memorial Building

Contract Specialist, Warner, SER

Two workers with McGuffy Industrial Contracting performed the specified drain cleaning work on the Lincoln Birthplace Memorial Building on April 30, 1981.

All apparent blockages were cleared and the drain system seems to be functioning in a satisfactory manner. Drain spouts were returned to their proper places and all work now appears to be complete and acceptable.

Nick Eason



57217-SER-SO

JAN 13 1981

2

CHANGE ORDER NO. 1
CX500000956

McGuffey Industrial Contracting
Route 1
Hodgenville, Kentucky 42748

Gentlemen:

In accordance with your letter of December 19, 1980 and paragraph 3 of the General Provisions of your contract, you are hereby directed to accomplish the following additional work:

Furnish labor, materials, supplies, transportation and other incidentals necessary to replace the wine glass in the skylight of the Memorial Building.

You will be reimbursed in the amount of $2,486.00 for this work. You will also be allowed an additional sixty (60) calendar days in which to accomplish the work. All work must be completed by February 27, 1981. All other terms and conditions remain unchanged at this time.

Please acknowledge receipt of this document in the space provided and return the original and two (2) copies to this office as soon as possible.

Sincerely yours,

/s/ Keith H. Warner

Keith H. Warner
Contracting Officer

cc:
SER-SO
SER-SP
SUPT., ABLI
BISHOP - OC

October 23, 1980

Historical Architect, Cultural Preservation

Preconstruction Conference Memorial Building, Abraham Lincoln Birthplace National Historic Site, October 14, 1980

Chief, Contracting and Office Services Division

During the preconstruction conference on the Memorial Building, ABLI, Mr. McGuffey contractor for the project and Historical Architect Ron Bishop reviewed the conditions of the existing roof.

As called for in Section 07510, paragraph 1-5- "Job Conditions" - the substrate is to be filled or repointed to make a smooth surface. The material to be used for repointing of the mortar joints was discussed and Mr. McGuffey will submit samples of epoxy mortars for this work.

The skylight glass is broken and cracked requiring replacement. Request your office obtain a quotation from the contractor for this additional work.

An inspection was made of the roof hatch cover and requires replacement. It is requested that a quotation be obtained also for this additional work, to include shop drawings.

Your earliest attention to these matters will greatly be appreciated.

/s/ RONALD W. BISHOP

cc:
Supt., ABLI

Form 10-192
(Rev. 9/65)

UNITED STATES DEPARTMENT OF THE INTERIOR
NATIONAL PARK SERVICE

SOUTHEAST REGIONAL OFFICE
(Park)

Check One:
Monthly Estimate ☐
Final Estimate X

UNIT PRICE CONTRACT

ESTIMATE NO.: 2 (Final)
FOR (Period): 12/31/80 - 6/30/81
DATE:
CONTRACT NO.: CX5000000956
COMPLETION DATE:
EXTENDED DATE: 5/6/81
CONTRACTOR: McGuffey Industrial Contracting
Route 1, Hodgenville, Kentucky 42748
ORIGINAL CONTRACT $ 8,552.00
PROJECT: Reconst. Memorial Building
CHANGE ORDERS* $
LOCATION: Abraham Lincoln Birthplace National Historic Site
TOTAL CONTRACT $ 11,507.00

ITEM NO	CONTRACT QUANTITY	DESCRIPTION	QUANTITY TO DATE	UNIT PRICE	AMOUNT TO DATE
1.	L.S.	Removal roofing & flashing	100%		2,000.00
2.	L.S.	Install roofing & flashing	100%		6,302.00
3.	L.S.	Repair downspouts, etc.	100%		250.00
		C.O. #1 *repair brick parapet*	100%		2,355.00
		C.O. #2 *replace wineglass in skylight*	100%	2,486.00	2,486.00
		C.O. #3 *flush roof drains*	100%		414.00

RECOMMENDED (Project Supervisor)

APPROVED (Contracting Officer)
Keith H. Warner
DATE 5/13/81

*Show Breakdown on Reverse

SUMMARY

TOTAL TO DATE	$ 13,807.00
LESS RETAINED AMOUNT	Ø
NET	13,807.00
LESS PREVIOUS PAYMENTS	10,907.00
LESS LIQUIDATED DAMAGES	Ø
DUE THIS ESTIMATE	2,900.00
% COMPLETED TO DATE:	100%

(See Reverse for Distribution)

CX 5000009560 B11/4

Ron –

Here are 6 shots of the brick I described on the phone. Shot #1 is taken at the point where the corner drain is located. Shot #6 shows the overall stage of roof stripping as of 10/31.

The brick work is basically 3 brick deep although placement patterns are generally variable. The outer layer is the one (next to the flashing) that has deteriorated. Mortar is generally broken down and some interior joints appear to be mostly, if not entirely, sand.

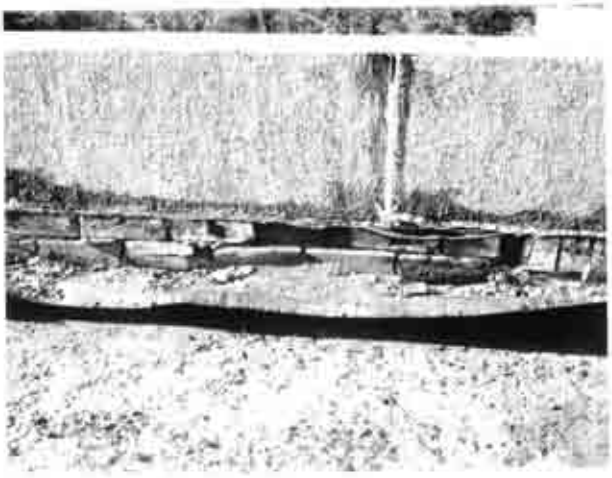
The space being occupied by brick appears to be 12½" deep.

Give me a call if you have questions.

Nick

#1

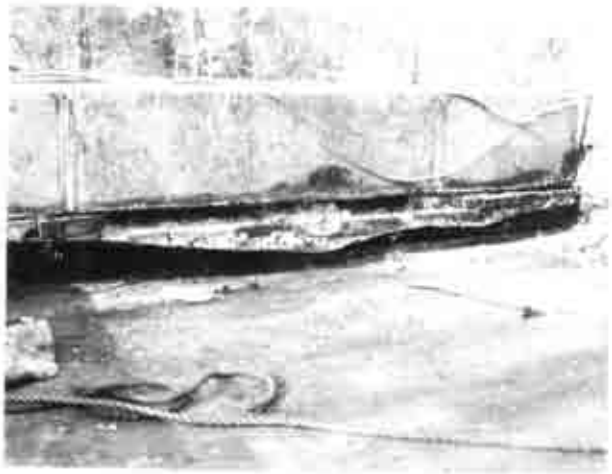
#6



#2

#4

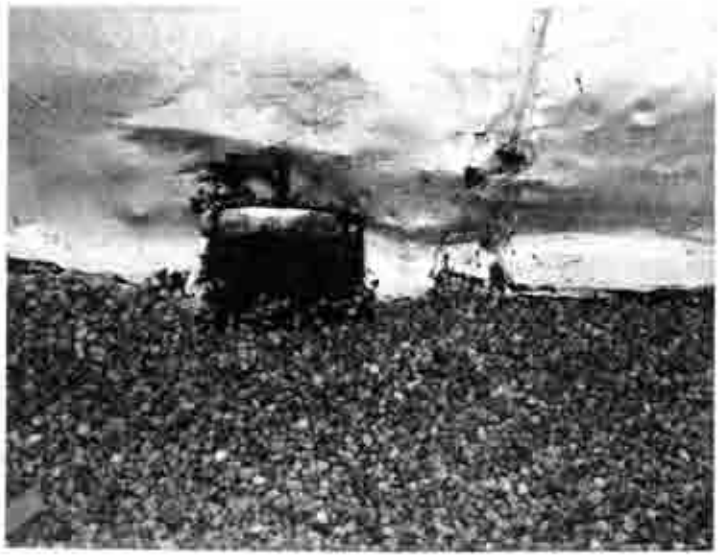
#3



#5

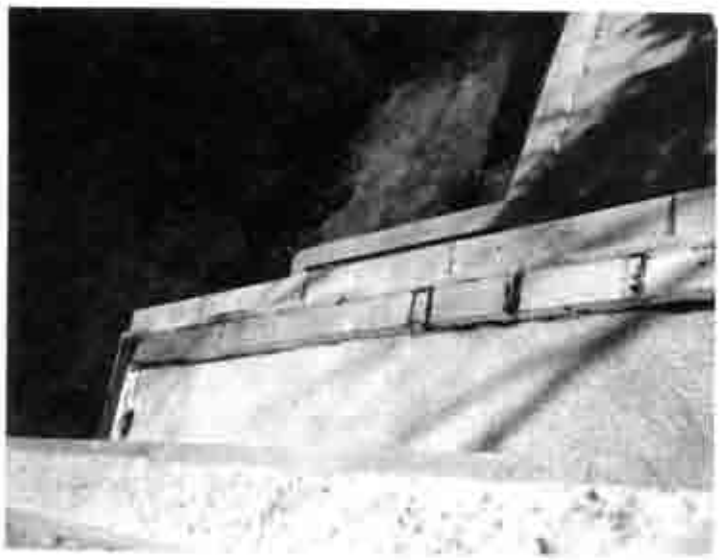
Abraham Lincoln Memorial Building
Reroofing

March, 1981



Abraham Lincoln Memorial Building
Reroofing

March, 1981



Abraham Lincoln Memorial Building
Reroofing

March, 1981

SECTION 106 STATEMENT
REPLACEMENT OF MEMORIAL BUILDING STAIRWELL COVER AND HATCH
ABRAHAM LINCOLN BIRTHPLACE NATIONAL HISTORIC SITE, HODGENVILLE, KENTUCKY

I. THE PROPERTY

The proposed undertaking would occur within Abraham Lincoln Birthplace National Historic Site near Hodgenville, Kentucky. The park contains 116.5 acres, all of which is listed in the National Register of Historic Places. Approximately 110.5 of these acres are part of the original 300 acre Sinking Farm which was once owned by Thomas Lincoln. It was on this farm that Abraham Lincoln was born on February 12, 1809. Key historic elements of the park in addition to the land itself are a stone memorial building containing the traditional birthplace cabin, a limestone spring which was the namesake of the Lincoln Farm, and the remains of large white oak which served as a corner marker of the farm property.

The specific feature to be involved in the proposed undertaking is the Memorial Building. This formal marble and granite building was designed by John Russell Pope and constructed to house the traditional birthplace cabin. President Theodore Roosevelt laid its cornerstone in 1909, and President Theodore Roosevelt laid its cornerstone in 1909, and President William Howard Taft dedicated the building two years later. The building along with the cabin inside are the key features of the park.

II. THE PROBLEM

A half basement which houses the buildings heating and cooling system and provides storage is reached by an outside stairwell at the rear corner of the building. The stairwell which measures 40 1/4 by 197 1/4 inches at the top is partially covered by a heavy steel hatch. The remainder of the covering consists of a metal lattice structure which holds 153 quartz-like blocks. The hatch cover is of heavy iron construction and the combination of weight and hinge position results in a serious lifting hazard. Anyone who attempts to open the basement hatch is required to lift an excessive weight from an unsafe lifting position and follow through into an extended position across the open stairwell. Many park employees lack the necessary strength to open the hatch at all and those who can do risk lifting injury when opening and risk a hand or foot injury when closing it.

The hatch was apparently intended as a utilitarian feature rather than a design feature. Unfortunately, the materials available at the time were limited and the existing hatch arrangement was the result.

The fixed portion of the stairwell covering includes nearly half of the total area. This portion consists of a metal lattice structure into which 153 quartz-like blocks have been set. Each block is 2 3/4 inches square but only five remain in reasonably good condition. The remainder are either seriously chipped and cracked or else are broken out completely. In spite of extensive

effort, it has been impossible to find a replacement source for the blocks.

In addition, the metal lattice work which supports the glass blocks is seriously eroded from long term moisture accumulation and rust. As this section continues to weaken it creates still another potential safety hazard which could eventually lead to a collapse.

The present conditions create multiple safety concerns and allow water and debris access to the basement area. They also limit access to what is probably the most durable storm shelter within the park. Since the existing hatch and grillwork were designed for utilitarian reasons it would appear that replacement with modern materials could be done without raising serious preservation concerns.

THE UNDERTAKING

The proposed plan will consist of a solid cover to replace the existing grill skylight plus a new hatch design which would permit fast and easy access to any employee with the necessary keyand a need for entry. The combination of modern materials and mechanics should permit a strong but effective unit. Specific design and construction would be accomplished through contract arrangements with local metal fabricators.

The entire replacement unit would be painted a flat black to match the existing hatch. Final exterior appearance will be a flat, unobtrusive unit which comes very close to the existing appearance and which does not detract from the building design or appearance.

THE EFFECT

The proposed undertaking will technically result in a change in historic appearance but the changes will not alter the architecture of the building itself. Light reduction from the removal of the glass blocks will be negligible and the only obvious change would be the replacement of the present grillwork with a solid cover.

Nearly all the glass blocks in the grillwork are broken beyond salvage but the best pieces will be retained within the park. Photographs of the existing arrangement will also be placed in park files.

Bendfits to be derived will include the elimination of deteriorated materials and the unsightly appearance of the broken blocks which are now visible. Benefits will also include the elimination of unsafe conditions and an increase in efficiency ad the basement becomes accessible to all employees who might need entry for a variety of reasons including shelter in the event of a tornado threat.

H4217

April 23, 1979

Memorandum

To: Associate Regional Director, Planning and Assistance, Southeast Region

From: Superintendent, Abraham Lincoln Birthplace NHS

Subject: Section 106 Statement, replacement of Memorial Building stairwell cover and hatch

We are agreeable to including the best pieces of the quartz-like blocks from the stairwell cover as part of our museum collection. These pieces will be few in number due to the present deterioration but museum retention of sound blocks plus photos of original construction was intended although it may not have been included in the 106 Statement.

Nicholas J. Eason

MARK ALL PACKAGES AND PAPERS WITH CONTRACT AND/OR ORDER NUMBERS

1. DATE OF ORDER	2. CONTRACT NO. (If any)	3. ORDER NO.	PAGE 1 OF
3/16/82		PX5540200[illegible]	

4. ISSUING OFFICE: Abraham Lincoln Birthplace NHS, Route 1, Hodgenville, Ky 42748

5. ACCOUNTING AND APPROPRIATION DATA: 5540-11001-605-3200 (4AC0

6. SHIP TO (Consignee and Address, ZIP Code)	VIA
Abraham Lincoln Birthplace NHS Route 1, ~~MXX~~ Hodgenville, Kentucky 42748	

7. TO CONTRACTOR (Name, Address, ZIP Code)

John Mills
Steel Fabrication
Route 1, Box 360
Elizabethtown, Kentucky 42701

8. TYPE OF ORDER
☒ (a) Purchase — Reference your

Please furnish the following on the terms specified on both sides of this order and on the attached sheets, if any, including delivery as indicated. This purchase is negotiated under authority of

☐ (b) Delivery — Except for billing instructions on the reverse, this delivery order is subject to instructions contained on this side only of this form and is issued subject to the terms and conditions of the above-numbered contract.

9. REQUISITION OFFICE	10. REQUISITION NO./PURCHASE AUTHORITY	11. F.O.B. POINT	12. GOVERNMENT B/L NO	13. DELIVERY TO F.O.B. POINT ON OR BEFORE	14. DISCOUNT TERMS
Abraham Lincoln Birthplace NHS, Route 1, Hodgenville, Ky 42748	PX5540200[illegible]		n/a		n/a

15. SCHEDULE — *See reverse for rejections

Item No. (a)	Supplies or Services (b)	Quantity Ordered (c)	Unit (d)	Unit Price (e)	Amount (f)	Quantity Accepted (g)
	Construct and install new stairwell door and cover at the rear of the Memorial Building. Entire unit to be primed and painted black. Original materials to be salvaged as far as possible.	one job			455.00	
	QUOTES Modern Welding ($758.00) Elizabethtown, Ky (estimate did not include installation) Wilson Welding Co. Inc. Jct. US 62 & KY 86 Cecilia, Ky No bid Atlas Metal Products Co. P. O. Box 19139 Louisville, Ky 40219 $1,910 w/out installation					

16. CLASSIFICATION: ☒ SMALL BUSINESS ☐ OTHER THAN SMALL BUSINESS ☐ MINORITY BUSINESS ENTERPRISE

15 (h) Total from continuation pages

SEE BILLING INSTRUCTIONS ON REVERSE

17. SHIPPING POINT	18. GROSS SHIPPING WEIGHT	19. INVOICE NO

20. MAIL INVOICE TO (Include ZIP Code): Abraham Lincoln Birthplace NHS
Route 1, Hodgenville, Ky 42748

455.00

15 (i) GRAND TOTAL

21. UNITED STATES OF AMERICA BY (Signature): Mary M. Giesecke

22. NAME (Typed): Mary M. Giesecke, Adm. Tech.
TITLE: CONTRACTING/ORDERING OFFICER

ORDER FOR SUPPLIES OR SERVICES

447-107

STANDARD FORM 147 (REV. 2-77)
Prescribed by GSA FPR (41 CFR) 1-3.605

NSN 7540-00-634-4105 PREVIOUS EDITION USABLE

MARK ALL PACKAGES AND PAPERS WITH CONTRACT AND/OR ORDER NUMBERS

1. DATE OF ORDER	2. CONTRACT NO. (If any)	3. ORDER NO.	PAGE 1 OF
3/24/82		PX5540020049	1

4. ISSUING OFFICE: Abraham Lincoln Birthplace NHS, Route 1, Hodgenville, Ky 42748

5. ACCOUNTING AND APPROPRIATION DATA: 6540-261-2600 NAT

6. SHIP TO (Consignee and Address, ZIP Code): Abraham Lincoln Birthplace NHS, Route 1, Hodgenville, Ky 42748

VIA

7. TO: CONTRACTOR (Name, Address, ZIP Code)

Central Kentucky Glass Company
P. O. Box 58
Campbellsville, Kentucky 42718

8. TYPE OF ORDER
☒ (a) Purchase Reference your _____

Please furnish the following on the terms specified on both sides of this order and on the attached sheets, if any, including delivery as indicated. This purchase is negotiated under authority of _____

☐ (b) Delivery Except for billing instructions on the reverse, this delivery order is subject to instructions contained on this side only of this form and is issued subject to the terms and conditions of the above-numbered contract.

9. REQUISITION OFFICE ▶ Abraham Lincoln Birthplace NHS, Route 1, Hodgenville, Ky 42748

10. REQUISITION NO./PURCHASE AUTHORITY: PX5540020049

11. F.O.B. POINT	12. GOVERNMENT B/L NO.	13. DELIVERY TO F.O.B. POINT ON OR BEFORE	14. DISCOUNT TERMS

15. SCHEDULE — * See reverse for rejections

Item No. (a)	Supplies or Services (b)	Quantity Ordered (c)	Unit (d)	Unit Price (e)	Amount (f)	Quantity Accepted* (g)
	Replace Kenmore Concealed opening closure - Memorial Building Door	1			208.00	
	Meeting Rail Weatherstripping	2		14.25	28.50	
	" " "	2		7.50	15.00	
	(2 adjustable and 2 regular)					

16. CLASSIFICATION: ☒ SMALL BUSINESS ☐ OTHER THAN SMALL BUSINESS ☐ MINORITY BUSINESS ENTERPRISE

15. (h) Total from continuation pages ◀

SEE BILLING INSTRUCTIONS ON REVERSE

17. SHIPPING POINT	18. GROSS SHIPPING WEIGHT	19. INVOICE NO.	

20. MAIL INVOICE TO (Include ZIP Code): Abraham Lincoln Birthplace NHS, Route 1, Hodgenville, Ky — 251.50

15. (i) GRAND TOTAL ◀

21. UNITED STATES OF AMERICA BY (Signature) ▶ _____

22. NAME (Typed): Mary H. Ghesecke, Adm. Tech.

TITLE: CONTRACTING/ORDERING OFFICER

ORDER FOR SUPPLIES OR SERVICES 147-108

STANDARD FORM 147 (REV. 2-77)
Prescribed by GSA, FPR (41 CFR) 1-3.605

Form 10-194
(Rev. 9/60)

UNITED STATES DEPARTMENT OF THE INTERIOR
NATIONAL PARK SERVICE

Abraham Lincoln Birthplace National Historic Site (Park)

Check One:
Monthly Estimate ☐
Final Estimate ☒

UNIT PRICE CONTRACT

ESTIMATE NO. 2	FOR (Period) 11/1/83 - 12/15/83	DATE 9-21-83
CONTRACT NO. CX-5000-3-1097	COMPLETION DATE 12-30-83	EXTENDED DATE
CONTRACTOR Cravens Construction Co., Inc., Flatwoods, KY		ORIGINAL CONTRACT $ 6,711.60
PROJECT Preservation of Abrham Lincoln Birthplace Memorial Bldg.		CHANGE ORDERS* $ -0-
LOCATION Hodgenville, LaRue County, Kentucky		TOTAL CONTRACT $ 6,711.60

ITEM NO.	CONTRACT QUANTITY	DESCRIPTION	QUANTITY TO DATE	UNIT PRICE	AMOUNT TO DATE
1.	L.S.	Temp. Facilities and Controls	100%	800.00	800.00
2.	378	Remove deteriorated, powdery and/or damaged plaster, per SF	534	3.00	1,602.00
3.	2	Replace deteriorated existing metal lath, per SY	ø	100.00	ø
4.	482	Replace deteriorated plaster on flat walls, per SF	430	6.00	2,580.00
5.	58	Replace deteriorated plaster on cornice and crown molding, per SF	104	6.00	624.00
6.	196	Paint cornice and crown molding & ceiling, per SF	362	1.10	398.20
7.	1020	Paint Interior Walls	742	1.10	816.20

RECOMMENDED (Project Supervisor)

William O. Nichols, Supt., per 12/29/83 memo, &
Thomas V. Baltzell, Historical Architect/COTR

APPROVED (Contracting Officer)

Zandra M. Dillon

DATE 1/20/84

SUMMARY

TOTAL TO DATE	$ 6,820.40
LESS RETAINED AMOUNT	-
NET	6,820.40
LESS PREVIOUS PAYMENTS	5,520.40
LESS LIQUIDATED DAMAGES	-
DUE THIS ESTIMATE	300.00
% COMPLETED TO DATE:	100%

*Show Breakdown on Reverse

(See Reverse for Distribution)

[redacted]

7. ACCOUNTING AND APPROPRIATION DATA

5540-I023-29-2600 (4AC)

10. REQUISITIONING OFFICE

Same as #4

11. BUSINESS CLASSIFICATION (Check appropriate box(es))

[X] SMALL [ ] OTHER THAN SMALL [ ] DISADVANTAGED [ ] WOMEN-OWNED

12. F.O.B. POINT

14. GOVERNMENT B/L NO.

15. DELIVER TO F.O.B. POINT ON OR BEFORE (Date)

16. DISCOUNT TERMS

13. PLACE OF INSPECTION AND ACCEPTANCE

ANI

17. SCHEDULE (See reverse for Rejections)

ITEM NO. (A)	SUPPLIES OR SERVICES (B)	QUANTITY ORDERED (C)	UNIT (D)	UNIT PRICE (E)	AMOUNT (F)	QUANTITY ACCEPTED (G)
	Replace two (2) 7½ ton compressors for Memorial Building Air Conditioner Remove 2 compressors Install two (2) Trane Model "J" or "G" 7 ½ T. Compressors Purge System Install new filters and driers Recharge	1	JOB	$3,175.00	$3,175.00	
	PREVIOUS BIDS Written Bids received from: James B. Phelps $3,446.65 Climate Control $3,281.85					

18. SHIPPING POINT

19. GROSS SHIPPING WEIGHT

20. INVOICE NO.

17(h). TOT. (Cont. pages)

21. MAIL INVOICE TO: (Include ZIP Code)

Same as # 5

17(i). GRAND TOTAL $3,175.00

SEE BILLING INSTRUCTIONS ON REVERSE #5

22. UNITED STATES OF AMERICA BY (Signature)

Mary M. Giesecke

23. NAME (Typed)

Mary M. Giesecke, Contracting Officer

TITLE: CONTRACTING/ORDERING OFFICER

NSN 7540-01-152-8083

5034/-101

OPTIONAL FORM 347 (10-83)

United States Department of the Interior
NATIONAL PARK SERVICE
SOUTHEAST CULTURAL RESOURCES PRESERVATION CENTER
1835 NORTHRIDGE ROAD
DUNWOODY, GEORGIA 30338

IN REPLY REFER TO:

Memorandum

To: Chief, Southeast Cultural Resources Preservation Center

From: Historical Architect, Southeast Cultural Resources Preservation Center

Subject: Trip Report--Skylight Inspection of Memorial Building, ABLI

The author of this report conducted a physical inspection of the skylight on 6 November 1984 under cool, dry and sunny weather conditions. The Park identified the purpose as technical assistance to repair leaks in the skylight. Superintendent Nichols and Maintenance Chief J.C. Henderson participated and facilitated the inspection by identifying key locations and routes of water penetration. The inspection recognized water penetration as well as moisture condensation as probable causes of water drippings which are addressed below with solutions.

FINDINGS AND DETERMINATIONS

The greenhouse-type skylight (see attached sketches) is temporarily protected from further water penetration with a polyethylene cover secured by rope and masonry units. Inspection of the skylight well interior found an original skylight of glass blocks protected by the above and later greenhouse-type. The original is at most inaccessible for a close physical inspection from above and below because of confined space and a safety risk, respectively. This restraint limited the inspection to the exterior of the greenhouse-type and the well walls below the original. Water stains exist mostly on the southwest walls of the skylight well.

Cover removal and inspection of the southwest exterior corner of the greenhouse-type identified immediate causes and means of water penetration as: 1) defective materials; 2) weak/faulty connections and seams; 3) missing cap clips; and 4) displaced retaining angle. The southwest corner exemplified all of the causes and means of water penetration according to Park participants; the balance portion of the skylight remained under cover without inspection.

Defective materials comprise of: sealants - coupling glass and rafters; solder - joining ridge and mullion rafters caps; rafter caps - spliting along their crests; and asphalt coating - applied over well curb flashing.

Weak/faulty connections and seams exist along adjoining defective materials and is further characterized by apparent separation of building components such as: rafters and caps; retaining angle and flashing; sheet metals of gable end; and flashing corners of well curb.

Missing cap clips disjointed from mullion rafters because of stress/fatigue and general deterioration. Missing clips cause caps to separate from rafters which encourage water penetration.

The displaced retaining angle elongated along the lateral well curb was designed to prevent the glass panes from slipping down the sloped mullion rafters. Its dislocation allows slippage of panes which creates opportunity for water entry along the ridge rafter. Furthermore, its design provides a continuous two-inch projecting rim above the lowest end of glass panes which prevents rain and snow run-offs.

Moisture condensation probably contributed inadvertently to some water stains in the skylight well. Condensation occurs on the inner face of the glass panes during winter because of exterior and interior thermal difference; especially if both gable vents remain closed to prevent heat loss. Ample condensation forms water dripping which may be easily mistaken for leaks.

Water drippings from condesation or prenetration follow along the sloped rafters and glass panes to the retaining angle. The top flange of the ninety degree angle is perpendicular to the sloped components which situates its bottom flange upward. The bottom flange holds accumulated water drippings from both condensation and penetration; it functions as a small gutter without proper drainage. Overruns trickle down the skylight well curb to the inside of the well walls as indicated by the water stains beneath the original skylight.

The Park participants candidly consider the long-range cyclic maintenance of the skylight as a perpetual nuisance which is expensive in time and cost. They seek a better way to minimize expenses without minimizing the visitor experience. Participants suggested complete removal of the skylights; and action that probably will not adversely effect the present visitor experience. The skylights are invisible to visitors and presently serve no useful function. The building interior is lit artificially by fluorescent lamps since an addition of a plywood deck beneath the original skylight.

Last but not least, Park Technician Robert McLean (handles Special Populations) voiced a separate but sincere concern to install handrails along steps approaching the Memorial Building. Suggested handrails will expressly provide needed physical support for the elderly and disabled visitors. Steps of the west sidewalk were identified for handrails and proved to be the least visually intrusive and most practical. The steps are new and designed with built-in steel plates for handrails and are situated nearest the main approach.

CONCLUSIONS AND RECOMMENDATIONS

Most structures require periodic and/or cyclic maintenance to retain weathertightness, prevent deterioration, repair/replace defective materials, and correct faulty details if necessary. The greenhouse-type skylight should be inspected before and after every winter to prevent and correct conditions which might lead to moisture condensation or penetration. Faulty conditions identified should be corrected or stabilized promptly to mitigate further impairments.

The scope of work to correct and prevent occuring water drippings in the existing greehouse-type skylight includes:

A. Prevent Water/Moisture Penetration
   1. Repair/replace defective materials
   2. Repair weak/faulty connections and seams
   3. Replace missing cap clips
   4. Properly reinstall retaining angles; remove two-inch projecting rim

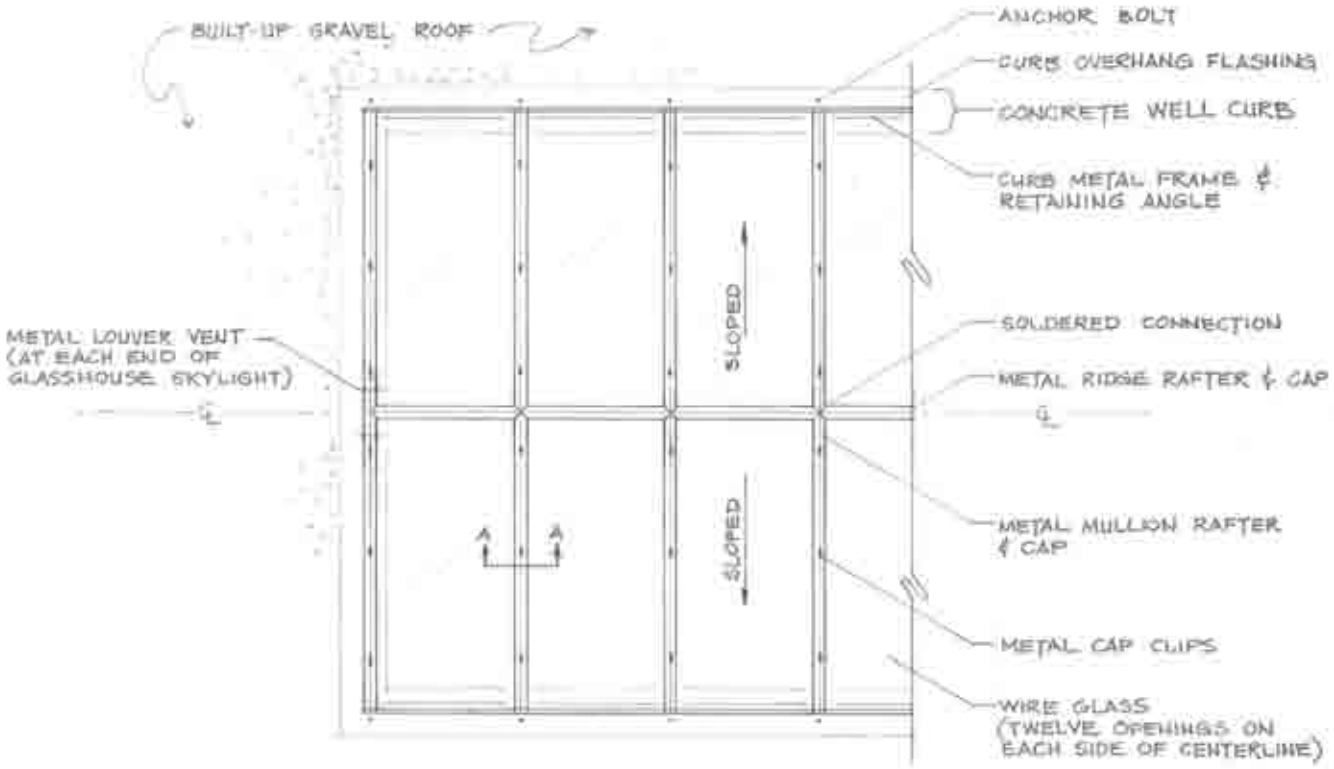
B. Prevent Accumulated Moisture Condensation
   1. Remove louver closure of vents; keep vents open year-round
   2. Provide weep holes in retaining angle (condensation gutter)

The work can be accomplished for less than $5000 by day-labor or contract. Both day-labor and contract methods introduce special concerns. First, the Park would like to pay its skilled employees the appropriate Davis-Bacon wages for day labor. Second, the required funds are not budgeted this fiscal year by our office. Third, contract necessitates more in-house preparation not programmed this fiscal year in our tight schedule. The scope of work attached as a change order to an awarded contract is not recommended as suggested by the Park; fifteen or more percentaged change in the scope of work to an awarded contract requires renegotiation.

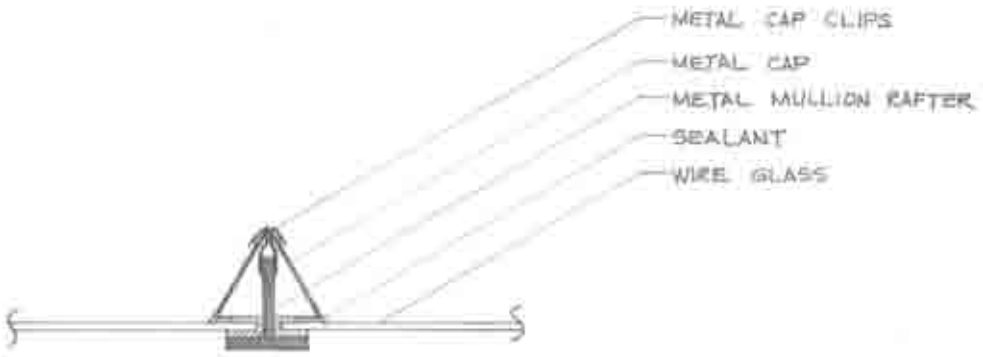
The temporary polyethlene covering in place over the skylight should remain until spring or repairs to prevent further moisture penetration. However, it should be adjusted to allow gable vents to remain opened during the winter to prevent moisture condensation. It should be inspected monthly under normal circumstances and immediately before and after heavy storms or snowfalls for leaks, damages and secured attachment.

Suggestions for complete skylight removal and step handrails installation need massaging and polishing with further justification, detail and form for compliance review.

MEMORIAL BUILDING - ABLI



EXISTING GLASSHOUSE SKYLIGHT PLAN
NO SCALE



SECTION A - A
NO SCALE

BY: DAVID L. ATES 11/6/84

COMPLETION REPORT

REPOINTING OF MEMORIAL BUILDING & STEPS

ABRAHAM LINCOLN BIRTHPLACE NATIONAL HISTORIC SITE

HODGENVILLE, KENTUCKY

CONTRACT NO. CX-5000-4-1054

NATIONAL PARK SERVICE
UNITED STATES DEPARTMENT OF THE INTERIOR

Form 10-174
(June 1962)

UNITED STATES DEPARTMENT OF THE INTERIOR
NATIONAL PARK SERVICE

FACE SHEET FOR COMPLETION REPORT

Work Order No.
MX-5000-4 1054

Fund Symbol

Park	Region	Year Programmed
Abraham Lincoln Birthplace NHS	Southeast	FY-84
Location in Park: Memorial Building	State(s): Kentucky	PCR No.
	County or Counties: Larue	Master Plan No.
[X] Contract and/or [ ] Day Labor		Master Plan Corrected By
		As Built Drawings By
Work Order Title: Repointing of Memorial Building and Steps		Date Started: May 16, 1985
		Date Completed: September 5, 1985

DESCRIPTION OF FIXED ASSETS (For completion by employee in charge of project)	TOTAL COSTS (For completion by FFO)
215 - Historic Structures Memorial Building	$39,376.81
TOTAL	$ 39,376.81

DISTRIBUTION No.	To

THE FIXED ASSET DESCRIBED ABOVE HAS BEEN COMPLETED IN ACCORDANCE WITH APPROVED DRAWINGS, SPECIFICATIONS, AND AUTHORIZED CHANGES

Submitted By: David Ates — Title: Historical Architect — Date: 5/30/86

Approved By: William A. Harris — Title: Chief, S.E. Preservation Center — Date:

COSTS VERIFIED BY _____ — Title: _____ — Date: _____

Form 10-174A
(June 1962)

UNITED STATES DEPARTMENT OF THE INTERIOR
NATIONAL PARK SERVICE

COMPOSITION OF COST FOR COMPLETION REPORT

Work Order Number: CX-5000 4-1054
Fund Symbol:

Park: Abraham Lincoln Birthplace NHS
Region: Southeast
Year Programmed: FY-84
Work Order Title: Memorial Building

Repointing of Memorial Building and Steps

COMPOSITION OF COST

COSTS CHARGED TO FUNDS ALLOTTED TO FIELD FINANCE OFFICE		
(1) Personal Services	$	
(2) Travel		
(3) Contract Work	39,376.81	
(4) Supplies and Materials		
(5) Other Direct Expenses		
(6) Operation of Equipment		
(7) Depreciation of Equipment		
(8) Purchase of Construction Equipment		
(9) Purchase of Other Accountable Equipment		
(10) Other Costs: _____		
(11) TOTAL COST CHARGED TO FFO FUNDS	xxxxxxxxxx	$
OTHER COSTS:		
(12) PS&S, AP, and/or Facilitating Services @ ____ %	$	
(13) Inventory and Other Non-Fund Costs		
(14) GROSS WORK ORDER COSTS	xxxxxxxxxx	$
LESS:		
(15) Residual Value of Construction Equipment on Line 8	$	
(16) Other Credits		
(17) NET COST OF FIXED ASSETS	xxxxxxxxxx	$

Identify other costs and other credits by line item entry, on an attached schedule, or explain in narrative.

25543

WARRANTY AMENDMENT

REPOINTING OF MEMORIAL BUILDING AND STEPS

ABRAHAM LINCOLN BIRTHPLACE NATIONAL HISTORIC SITE

CONTRACT NO. CX-5000-4-1054

Description of Work: The work performed under this contract was limited to the exterior of the building and included two bid additives. Principal features of the work consisted of repointing mismatched colored and/or defective mortar joints in building, monumental steps with cheek walls, and terrace enclosure wall with steps; glassbead blast cleaning all masonry surfaces of building; removing and reinstalling copper leaderboxes and downspouts; removing steel pins remains of safety ladder on north (rear) elevation of building and filling resulting holes with mortar; sealing expansion cracks around concrete terrace where it interfaces with building; and resealing expansion joints in concrete terrace and around landings of monumental steps.

Plans and Specifications: Preliminary surveys, drawings and scope of work as well as final plans and specifications were provided by the Southeast Cultural Resources Preservation Center.

The contract documents were transmitted for implementation to the Procurement and Contracting Division, Southeast Regional Office, by letter dated May 1, 1984.

The contract drawings No. 338/80,070 consists of four sheets.

Project Activities: The project was not synopsized in the Commerce Business Daily as it was a noncompetitive negotiated contract in behalf of the 8 (a) set-aside program of the Small Business Administration (SBA). It was offered to SBA by letter dated May 18, 1984 and accepted by letter dated June 29, 1984. Copies of the solicitation, Request for Proposal (RFP) No. 5000-84-49, were sent July 24, 1984, to SBA and its proposed contractor, R & F Weaver Company, Inc., of Louisville, Kentucky.

The solicitation was subsequently amended three times. Amendment No. 1 dated August 10, 1984 substituted a version of Section 01700, "Project Closeout", of the solicitation for a version which appeared in the original solicitation. Amendment No. 2 dated August 15, 1984 correct the original wage rate determination for laborers and extended the proposal due date. Amendment No. 3 dated September 21, 1984 confirmed several changes in the original solicitation which were agreed to in the course of negotiation.

On September 28, 1984, a Notice of Award was issued to SBA for acceptance of the proposal submitted by R & F Weaver Company, Inc., in the amount of forty thousand, one hundred three dollars and thirty-six cents ($40,103.36). The contract type selected was firm fixed-price.

the project site on April 24, 1985, to review contract documents, project specifics and related issues, and any points that needed to be resolved before the contractual work commenced.

In discussion during the pre-construction conference and in subsequent telephone conversations with the Contractor (R & F Weaver Company, Inc.) it was agreed that the beginning date of the contract would be May 16, 1985. Notice to Proceed was issued on May 20, 1985, to establish the first date as agreed earlier. A target completion date was set for August 13, 1985.

A change order effected on August 8, 1985, decreased the total bid amount to thirty-nine thousand, three hundred seventy-six dollars and eighty-one cents ($39,376.81). The change order provided for protection of the leader boxes and downspouts in place rather than their removal and reinstallation as originally required. No additional time was granted for the change order.

A final inspection conducted August 13, 1985 revealed that the work had been completed substantially in accordance with the plans and specifications. The work was accepted subject to the satisfactory completion of a punch-list of items to be accomplished. The Contractor was asked to complete this work within twenty three (23) calendar days; he did by September 5, 1985. No liquidated damages were assessed.

The Contractor performed all work required by the contract without the use of sub-contractors.

Release of Claims was signed on December 27, 1985.

Final payment was made on January 7, 1986.

Report by: _____ 5/30/86

David L. Ates
Historical Architect, COTR
Southeast Preservation Center

Date

Enclosures

Form DI-1
(Rev. 4-56)

DEPARTMENT OF THE INTERIOR

REQUISITION

Requisition Number

To	Bureau or Office	Date
Contracting, SERO-NPS	SER-OCR	26 December 1985

Appropriation and Allotment or Project No.	Charge shipping costs to
5870-309	N/A

Vendor	Deliver to
R & F Weaver Co., Inc. P. O. Box 1953 Louisville, Kentucky 40201	Contracting, SERO-NPS

ITEM OR FORM NO.	DESCRIPTION	QUANTITY	UNIT	UNIT PRICE	AMOUNT
	Re: Prime Contract No. CX-5000-4-1054 Subcontract No. 4-84-2-0484 Repoint Memorial Building and Steps Abraham Lincoln Birthplace National Historic Site				
	ACTUAL QUANTITIES INSTALLED vs. Estimate Quantities of Contract Bid Schedule				
1.	Bid Item No. 2 (Quantity Decrease) Seal Concrete Expansion Cracks	(-22)	LF	$10.30	(-$226.60)
2.	Bid Item No. 7 (Quantity Increase) Reseal Concrete Expansion Joints	62	LF	7.50	465.00
3.	Bid Item No. 9 (Quantity Decrease) Repoint Enclosure Walls and Steps	(-38)	LF	4.80	(-$182.40)
	Total Net Dollar Change.....				$56.00

JUSTIFICATION

Contractor indicated by invoice dated 5 November 1985 that additional quantities were installed for Bid Item Nos. 2, 7 and 9. The work done under these bid items has been remeasured and the results are reflected above with a net dollar change or increase of $56.00 in Contractor's favor.

For Use When Additional Approval is Required

Bureau Officer

(Signature) (Date)

Title

Requisitioned by (Signature) [signature]

Title COTR

Approved by (Signature) [signature]

Title Chief, SE Preservation Center

Prepare in single space typing. Use double space between items. Fill out top of requisition completely, showing complete

DEPARTMENT OF THE INTERIOR
NATIONAL PARK SERVICE

Abraham Lincoln Birthplace NHS (SERO)
(Park)

Check One:
Monthly Estimate ☐
Estimate XX

UNIT PRICE

ESTIMATE NO.: FIVE(5) Final
FOR (Period): 5/16/85 - 9/5/85
DATE: 12/17/85
CONTRACT NO.: CX 5000-4-1054/4-84-2-0484
COMPLETION DATE: August 13, 1985
EXTENDED DATE:
CONTRACTOR: CBA/ R & F Weaver Co., Inc., P. O. Box 1953, Louisville, KY 4020
ORIGINAL CONTRACT: $ 40,103.36
PROJECT: Repoint Memorial Building & Steps
CHANGE ORDERS-(1): $ (726.55)
LOCATION: Abraham Lincoln Birthplace National Historic Site
TOTAL CONTRACT: $ 39,376.81

ITEM NO.	CONTRACT QUANTITY	DESCRIPTION	QUANTITY TO DATE	UNIT PRICE	AMOUNT TO DATE	
1.	L.S.	Temporary Facilities & Controls	100%	4,765.	4,765.00	
2	194	Seal Concrete Expansion Cracks, per LF	172	10.30	1,771.60	
3	L.S.	Remove Steel Pin Remains	100%	1,015.	1,015.00	
4	2411	Repoint Memorial Building, per LF	2411	2.26	5,448.86	
5	L.S.	Protect Leader Boxes & Downspouts	100%	763.45	763.45	C.O.#
6	L.S.	Glassbead Blast Clean Memorial Bldg.	100%	13,524.	13,524.00	
7	346	Reseal Concrete Expansion Joints, per LF	408	7.50	3,060.00	
8	2270	Repoint Masonry, Monument Steps, per LF	2270	3.15	7,150.50	
9	441	Repoint Enclosure Walls & Steps, per LF	403	4.80	1,934.40	

CERTIFIED (Project Supervisor)

David Ates, Historical Architect/COTR

APPROVED (Contracting Officer)

Wendell Chason

DATE: 11/18/85

(See Reverse for Distribution)

SUMMARY

TOTAL TO DATE	$39,432.81
LESS RETAINED AMOUNT	Ø
NET	$39,432.81
LESS PREVIOUS PAYMENTS	38 876 01
DUE THIS ESTIMATE	$ 556.00
% COMPLETED TO DATE	100%

Kentucky Heritage Commission
104 Bridge Street
Frankfort, Kentucky 40601

June 26, 1978

Mr, Neal G. Guse, Jr,
Acting Regional Director
U. S, Department of the Interior
National Park Service, Southeast Region
1895 Phoenix Boulevard
Atlanta, Georgia 30349

Dear Mr. Guse:

Thank you for your letter of June 6, 1978 regarding the proposed repointing of the stone steps leading to the front entrance of the Memorial Building at Abraham Lincoln Birthplace National Historic Site, I concur with your determination of no effect regarding this project.

If I may be of further service to you, please call upon me.

Sincerely yours,

Eldred W. Melton

Mrs. Eldred W, Melton
Executive Director
State Historic Preservation Officer

STATEMENT IN COMPLIANCE WITH SECTION 106 OF THE NATIONAL HISTORIC PRESERVATION ACT OF 1966. REPOINTING OF STONE STEPS LEADING TO MEMORIAL BUILDING FRONT ENTRANCE, ABRAHAM LINCOLN BIRTHPLACE NATIONAL HISTORIC SITE, HODGENVILLE, KENTUCKY.

I. PROPOSED UNDERTAKING

It is proposed that all joints of the 56 steps to the front of the Memorial Building be cleaned in approved fashion and repointed with a suitable mortar material. The same procedure will be used, if needed, to replace the existing sealer used on the joints around the gravel surfaced rectangles at the stair landings. The steps and risers will also be cleared of organic leaf stains, utilizing minimal impact methods. All work will be done under specifications established by National Park Service historical architects.

II. PROPERTY INVOLVED

The proposed undertaking would occur within Abraham Lincoln Birthplace National Historic Site near Hodgenville, Kentucky. The Park contains 116.5 acres, all of which is listed in the National Register of Historic Places. Approximately 110.5 fo these acres are part of the original 300 acre Sinking Spring Farm which was owned by Thomas Lincoln. It was on this farm that Abraham Lincoln was born on February 12, 1809. Key historic elements of the park in addition to the land itself are a stone memorial building containing the traditional birthplace cabin and a limestone "sinking" spring which was the namesake of the Lincoln Farm.

The specific feature to be involved in the proposed undertaking is the Memorial Building. This formal marble and granite building was designed by John Russell Pope and constructed to house the traditional birthplace cabin. President Theodore Roosevelt laid its cornerstone in 1909, and President William Howard Taft dedicated the building two years later. The building along with the cabin inside are key features of the park.

A series of 56 steps, one for each year of Abraham Lincoln's life lead from the basin area in front of the building to the front door. The steps are constructed of solid granite blocks and each joint is pointed with a type of caulking or mortar. However, harsh winter conditions caused the joint material to break down. Many of the joints are now open and subject to moisture retention and further deterioration.

III. CORRECTIVE MEASURES

The existing filler will be removed from all joints to a minimum depth of 3/4 inch using hammers and small chisels. The existing cement type mortar is brittle and very poorly bonded. Spot checks indicated that hand removal would be the easiest and most effective method. The spot checks also revealed that it would be necessary to clean to depths greater that 3/4 inches in places in order to have a sound base for new application. Each step has a total of 4 cross joints plus one continuous joint at the bottom of the front edge.

Once the old mortar is removed the joints will be thoroughly flushed with potable water under pressure and brushed to remove any silt or other material which would interfere with a good bond. Following cleaning, the joints will be replaced with material recommended by the regional preservation specialists.

The cleaning in and around the mortar joints will likely result in an uneven appearance of the steps. Organic leaf stains have accumulated on the steps and risers since the last cleaning five years ago. This contributes to the current unsightly appearance of the steps.

It is proposed that the steps and risers be cleaned with a power pressure spray or other approved method in conjunction with the repointing operation.

IV. THE EFFECT

The proposed corrective procedures should block water percolation which can now occur at the weathered joints of the Memorial Building steps. It should also improve the appearance of the steps by eliminating the weathered joint conditions and organic leaf stains which are readily visible to everyone. These benefits can be obtained without making any changes in the historic structure itself and are essential as part of the maintenance needs of the facility.

I N S P E C T I O N R E P O R T

M E M O R I A L B U I L D I N G

HEATING / AIR CONDITIONING SYSTEM

Abraham Lincoln Birthplace Natl. Historic Site, Kentucky

June 6, 1989 Park Visit
by John Eubank, Mechanical Engineer
WASO, Operations Engineering, Denver

The following recommendations/comments are submitted for your consideration:

1. Possible Problem of Furnace Combustion Products Entering Into Building's Circulated Air.

The primary purpose of this visit to the Historic Site was the park's concern that furnace combustion products, especially soot, might be entering the Memorial Building via the HVAC circulated air. This concern resulted from the somewhat mottled paint appearance that was developing at certain interior wall locations in the Memorial. Blue-gray paint areas where the wall surface has minor protrusions appear somewhat darker in a number of places than the surrounding paint color.

Inspection inside the air distribution ducts directly adjacent to the furnace and in the ducts of the Memorial Room showed no obvious evidence of sooting. The heating mechanic from the local company which services the furnace met with us about the problem, but he knew of no recent furnace troubles nor of any furnace evidence indicating combustion chamber deterioration. At one time there had been very minor oil leaks, (actually repair/tune-up oil spills) that could have caused a temporary oil odor in the building. The furnace is not really old enough (approximately 14 years) where combustion chamber burn-through or cracking would be of routine concern/suspicion, (allowing soot and gases to escape from the furnace into the air distribution ducts).

The paint mottling appeared to be normal fine dust deposition from the system air flow in the Memorial Room, where it moved over varying small raised or indented surfaces of the wall. There is a good possibility that better air filtering would reduce the problem. The filters of the air conditioner (not the furnace), although of the high quality metal washable type, were constructed with rather course filter pores.

assure seal. Ship bag(s) in a sturdy, well sealed, box to prevent breakage/spillage during postal processing and during distribution in the state office mails.

3. Fresh Air In Memorial Building HVAC System

No fresh air inlets/intakes could be found in either the air distribution system, nor in the equipment room at the furnace for its combustion process.

Public buildings should have 5 to 10 percent fresh air make-up in the circulated air. Such air change is probably not important in this large, high ceilinged, building where the total air volume is very great compared to the building occupancy at any one time. The high frequency of outside door openings exchanges some fresh air each time which further mitigates the need for make-up air.

Fresh air for furnace combustion at the Memorial Building probably does need some attention. Numerous 1/4 inch holes should be drilled in the old coal shuttle manhole cover to allow more fresh air into the furnace room by that route. (Obviously some fresh air already enters the furnace room through door and ducting leaks, as poor combustion does not seem to have been a noticeable problem through the years.) The drilling of the manhole cover should be done in an acceptable pattern, considering the historical significance of all aspects of this building. The manhole sets higher than the general terrain surrounding it. So rain can enter the basement through these holes, but only from direct hits. If too much rain enter the basement for the nearby floor drain to handle, some drilled holes might have to be plugged, but this is not expected to be a problem. Snow melt through the holes should not be a serious problem as the snow would normally be shoveled along with the adjacent main sidewalk of the building.

4. Air Conditioning Supply Registers In Floor Of Main Room of Memorial Building

The existing supply registers in the floor of the building were installed many years after the building was constructed, at the advent of building air conditioning. Their construction is not of the style, color, or material of the classic original heating registers of the building. They could be replaced to improve the historical interior appearance of the room, and improve its air conditioning air circulation. If they are replaced in the style of the original bronze registers it is suggested that their angle of air throw (fins/diverters) be changed to 10 degrees off of the vertical instead of the current approximately 45 degree angle. The grill openings should be doubled in size (requiring half the number of openings). These changes in the register design will improve the throw and circulation of the

The special endowment funds that are currently available at the park for such work could be used to purchase and install an electronic air filter console in the duct ahead of the air conditioner. The present course metal filters should be eliminated from the air conditioner. The electronic filter purchased should be a model with washable metal filters ahead of the precipitation electronic filter section which is also washable. The unit selected should be liberally sized so that it does not significantly restrict air flow in the Memorial Building. A quality unit such as Honeywell manufactures, should cost under $1000 installed. Consideration might also be given to the installation of an identical unit ahead of the furnace, although the furnace does have the finer pores disposable fabric filters. It is important that the disposable filters always be installed where the total air flow is filtered, not where a loose filter or a poorly sized filter lets a significant amount of air to bypass the filtering element.

Although no soot was found in the circulating air of the Memorial Building at this inspection, the possibility that it may be occurring at some odd times or under some odd conditions should be considered and watched for in the next winters operation. The furnace/air conditioning serviceman should be alerted to check for any sooting on his maintenance/repair visits to the park.

2. Testing of HVAC Duct Insulation Material for Possibility That It Might Be Asbestos.

The park staff asked where insulation material might be sent for testing to determine if it constituted an asbestos hazard. The Kentucky Bureau for Health Services (laboratory) in Frankfort stated that such testing was available without cost to U. S. Government agencies. The sample for testing should be submitted as follows:

- send to:
State of Kentucky
Bureau for Health Services
Laboratory Services; Instrumentation Dept; (Ms. Porter)
275 E. Main Street; Frankfort, KY 40621

-Only a small sample, less than the size of a roll of 35mm film is needed. Obtain sample from the center of insulation batt, in system's return duct. Possibly submit one sample from the older ducting, and one from the somewhat newer ducting, if insulated.

-Use care in obtaining sample to minimize dispersal of the insulation material in the air in case it should actually test out later to be asbestos.

-Place sample in a plastic zip-lock bag. Tape bag to

conditioned air in the upper reaches of this extremely high ceiling building resulting in a more uniform temperature throughout the room and around the cabin.

5. Cabin Heating/Cooling Thermostat

Park maintenance requested that a means be explored for removing the thermostat from inside the cabin to improve the interior historical appearance of the cabin, to provide an easier means of setting the thermostat, and to improve the monitoring of the Memorial Building temperatures.

Installing the thermostat in the basement with a small inconspicuous remote sensor located in the cabin was explored, but a long-distance remote probe type thermostat could not be located. There are microprocessor controlled thermostatic controllers that work from remote electrical infrared sensors; however, this option was not explored because of its complexity for the application.

One solution might be to relocate the existing thermostat to the wall behind the interpreters desk in the main room. The temperature at the desk is essentially the temperature of the cabin, therefore maintaining the cabin at the correct temperature. Honeywell sells various sized lockable transparent boxes for this application.

A less desirable (more complex) solution is to install the thermostatic control box in the equipment room and the thermostat's probe in the HVAC system's main air return duct. However, in the Memorial Building's system, the return duct becomes a supply duct in the opposite season of the year by automatically reversing dampers in the ducts, depending upon whether the building is calling for heating or cooling. In the Fall and Spring seasons the system changes back and forth between heating and cooling within the same day. Duct probes would be fairly complicated to install due to the control changes that would be necessary and would be of questionable accuracy with the duct directional changes that takes place.

6. Natural Gas Fuel For Memorial Building And Other Furnaces

Although the Memorial Building furnace (approximately 250,000 BTU size) was not found to be in need of immediate replacement, (item 1. above), it should be replaced in the near future with a natural gas furnace. The natural gas furnace is much cleaner and easier to maintain and understand, is not subject to the oil spills/leaks (with their penetrating odor), does not require a storage tank (with its own environmental problems), and in many areas of the U. S. is a lower priced fuel than oil. Also the other oil furnaces in the park would be similar candidates for replacement.

During this visit the park Chief of Interpretation briefly contacted the local natural gas company and determined that a gas pipeline runs within approximately one mile of the park boundary. The local office did not know if gas from that line was in sufficient supply to be made available to the park, or if a gas company lateral off that line to the park would be feasible.

Negotiations for natural gas services, (including right-of-way problems), and construction of the pipeline can take some time, therefore it is suggested that preliminary contacts with the gas company be started in the near future. WASO Operations Engineering Office in Denver has a Utilities Engineering branch that conducts such negotiations and contracting for natural gas utility service. It is suggested that this branch be formally requested by the park, (through the regional office) to conduct negotiations with the natural gas company who would be serving the park area.

7. Humidity Control, Memorial Building

Park management requested engineering recommendations to improve humidity control of the Lincoln Cabin. The cabin should probably be maintained at a quite constant relative humidity in the mid humidity range around 50 percent, year around.

The cost of humidity control in a building is mainly tied to two elements; the volume of air in the building, and the margin (band) of relative humidity range needed for the particular type of historical artifact/item being preserved. Air leakage or air exchange in the building, and the outdoor humidity climate/conditions are also very significant.

A cursory review of relative humidity recordings in the Cabin for the last two or three years, indicated humidity extremes of around 38 per cent and 73 per cent. The bulk of the recordings fell in a band from 42 per cent to 66 per cent relative humidity. Humidity control in the Memorial Building for a wide humidity band of, say 45 per cent to 65 per cent, humidifying and dehumidifying equipment, (two entirely different types of equipment), might cost less than $10,000. Control in the range of 48 per cent to 52 percent might cost in excess of $50,000. Costs rapidly increase as the band of allowable humidity fluctuations (year round) is narrowed.

The extra energy costs to run the equipment for humidity control is increasingly effected by the narrowed band of humidity control. For the 45 to 65 per cent example, monthly energy costs for the Memorial Building might increase $200, whereas the 48 to 52 per cent range might add as much as $1000 to the utility bill.

The Memorial Building involves an extra problem for humidity

control because of the numerous door usage (to the outdoors environment) by the traffic of visiting public. This significant cause of a considerable air exchange in the building (and the resulting humidifying/dehumidifying load) can probably not be improved by the normal method of double entrance doors (for an air lock effect). Double doors would probably seriously change the appearance of the building from its important historical standpoint.

Before design and estimating work for humidifying/dehumidifying systems at the building can be seriously undertaken, the Park and Region will need to decide: (1) the absolute relative humidity percentage needed, (2) the humidity range bracketing this percentage that will be required to protect the Lincoln Cabin, and (3) what modifications, if any, could be permitted to the architecture of this building. For very close humidity control, the heating and air conditioning units in the basement (and the outside condensing unit behind the building) would have to be replaced by significantly larger machines. However, the basement of the building is spacious enough for the larger equipment, and electric power service to the building appears to be adequate, but would need to be verified.

The current sawtooth pattern recorded on the humidity recorder indicates a relative humidity change of 4 per cent with the cycling of the air conditioner (approximately every five minutes). This fluctuation was of concern to the park, but it may not be as detrimental to the Lincoln Cabin as it appears on the chart. The moisture in wood and chinking/caulking of the Cabin probably fluctuates much less than the 4 per cent indicated because of the mass/inertia of these materials, and their fairly tight porosity. They are probably little affected in the short term by the surrounding air/humidity with which they are in contact. The slower, night and day and seasonal effects of the changing relative humidity on the Cabin are, of course, an entirely different matter.

8. Environmental Control Equipment for Balley Co. Museum Storage Container/Unit, (at Visitor Center)

The park would like to equip the Balley storage room unit with a unit designed/manufactured for constant control of temperature and humidity within the room. This would ensure proper storage of its museum quality contents. The Balley box is located in the under-building section of the Visitor Center. It is of insulated, sealed, pre-fabricated construction, and is of approximately 8 by 7 by 6 foot size. The new equipment would need to provide heating, cooling, humidifying, and dehumidifying of the air inside the storage unit, probably by means of air circulation into the box through tubing-ducts from the special equipment mounted on the outside of the box.

A manufactured, packaged, four function single unit could not be

found for this particular application; however, the search will be pursued further with the Harper's Ferry museum curator group, if desired. The Harper's Ferry group uses a similar special equipment set-up for temperature/humidity control in certain museum exhibit cases containing precious artifacts requiring a controlled environment. From the size of the box, its tight and insulated construction, and the temperature and humidity conditions of the under-building location where the box is located, it is roughly estimated that such a machine will probably cost under $5000 installed, and less than $50 per month electrical to operate.

United States Department of the Interior

NATIONAL PARK SERVICE

ABRAHAM LINCOLN BIRTHPLACE NATIONAL HISTORIC SITE
2995 LINCOLN FARM ROAD, HODGENVILLE, KENTUCKY 42748

IN REPLY REFER TO

D3415(ABLI-M)

July 5, 1990

Memorandum

To: David L. Ates, Historical Architect, Southeast Region

From: Superintendent, Abraham Lincoln Birthplace NHS

Subject: Memorial Building Ladder

The following information about the ladder and the enclosed photographs are provided in response to your telephone request.

Access to the roof of the Memorial Building is via a ladder arrangement that actually consist of four components:

1. The bottom section (stored in the basement of the Memorial Building) is a detachable, 10' wooden ladder. This section hooks to the bottom rung of the second portion.

2. The second portion consist of six steel rungs spanning 8' and anchored in the granite blocks of the building. We do not know exactly how these rungs are fastened in the blocks (Photo A).

3. The third section, also made of steel, is approximately 7' long and extends away from the surface of the exterior to facilitate climbing over the ledge extending from the parapet (Photo B).

4. The top section, consisting of three steel rungs anchored in the granite blocks, is similar to section two and is approximately 4'5" from the ledge to the top of the parapet (Photo C).

There is a safety line consisting of a cable anchored to the existing steel rungs at top and bottom (see Photo A). This clips to a "safety" belt worn by the climber. Our maintenance employees do not feel safe wearing the safety line because it requires them to hang by one hand and move the safety catch as they climb the ladder.

The rungs are another cause for concern. We do not know how they are anchored in the granite blocks and there is some indication that the metal rungs and/or anchors have deteriorated (see Photo E). At least one of the rungs in the second section has some outward movement.

The section near the top ledge requires the climber to support his weight while climbing over the ledge, throwing his weight backward away from the building.

We do not have construction records on this building; however, the ladder is believed to be part of the original construction. If so, it is almost 80 years old.

The ladder needs to be analyzed to determine its condition. If it is determined bo be unsafe, we should look at alternate methods of gaining access to the top of the building.

United States Department of the Interior

NATIONAL PARK SERVICE

ABRAHAM LINCOLN BIRTHPLACE NATIONAL HISTORIC SITE
2995 LINCOLN FARM ROAD, HODGENVILLE, KENTUCKY 42748

D34(ABLI)

August 30, 1993

Memorandum

To: Maintenance Division, ABLI

From: Superintendent, Abraham Lincoln Birthplace NHS

Subject: Access to top of Memorial Building

NO ONE is to gain access to the top of the Memorial Building by ladder without using the safety line. Please sign acknowledgement below, keep a copy for each employee and return original to me.

Carolyn Link

Carolyn Link

cc: Park Safety Officer
Safety Committee Chairperson

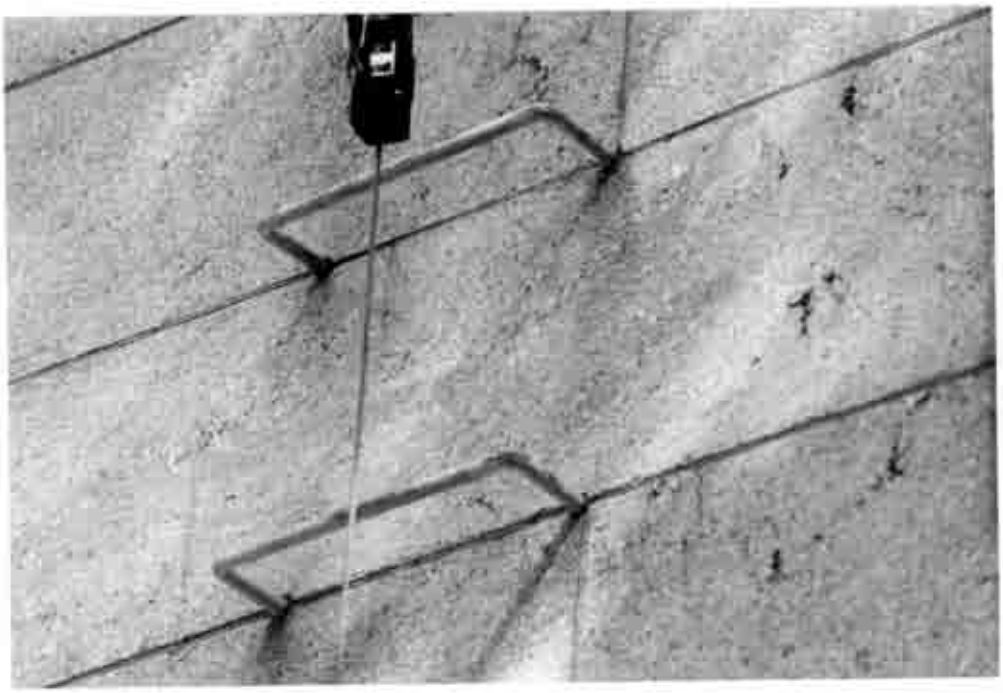
Receipt of this memorandum is hereby acknowledged.

Russell Flanders
Russell Flanders, Maintenance Foreman — 9-1-93 Date

Tom Skaggs, Maintenance Worker — Date

Phillip Atherton
Phillip Atherton, Maintenance Worker — 9-3-93 Date

Carol Coomer
Carol Coomer, Maintenance Worker — 9/1/93 Date



Steel rungs appear to be rusting. Extent of deterioration has not been determined. There is some outward movement in at least one rung.

A portion of this 7' section extends away from the building
to provide access over the ledge extending from the building.

Ladder attached to rear wall of Memorial Building. Not pictured is a 10' wooden ladder which attaches to the bottom rung.

Approximately 45' from ground to top of building.


THIS 1935 PHOTOGRAPH SHOWS THE LADDER IN PLACE
AT THAT TIME.

STATEMENT IN COMPLIANCE WITH SECTION 106 OF THE NATIONAL HISTORIC PRESERVATION ACT OF 1966. REPOINTING OF STONE STEPS LEADING TO MEMORIAL BUILDING FRONT ENTRANCE, ABRAHAM LINCOLN BIRTHPLACE NATIONAL HISTORIC SITE, HODGENVILLE, KENTUCKY.

I. PROPOSED UNDERTAKING

It is proposed that all joints of the 56 steps to the front of the Memorial Building be cleaned in approved fashion and repointed with a suitable mortar material. The same procedure will be used, if needed, to replace the existing sealer used on the joints around the gravel surfaced rectangles at the stair landings. The steps and risers will also be cleared of organic leaf stains, utilizing minimal impact methods. All work will be done under specifications established by National Park Service historical architects.

II. PROPERTY INVOLVED

The proposed undertaking would occur within Abraham Lincoln Birthplace National Historic Site near Hodgenville, Kentucky. The Park contains 116.5 acres, all of which is listed in the National Register of Historic Places. Approximately 110.5 fo these acres are part of the original 300 acre Sinking Spring Farm which was owned by Thomas Lincoln. It was on this farm that Abraham Lincoln was born on February 12, 1809. Key historic elements of the park in addition to the land itself are a stone memorial building containing the traditional birthplace cabin and a limestone "sinking" spring which was the namesake of the Lincoln Farm.

The specific feature to be involved in the proposed undertaking is the Memorial Building. This formal marble and granite building was designed by John Russell Pope and constructed to house the traditional birthplace cabin. President Theodore Roosevelt laid its cornerstone in 1909, and President William Howard Taft dedicated the building two years later. The building along with the cabin inside are key features of the park.

A series of 56 steps, one for each year of Abraham Lincoln's life lead from the basin area in front of the building to the front door. The steps are constructed of solid granite blocks and each joint is pointed with a type of caulking or mortar. However, harsh winter conditions caused the joint material to break down. Many of the joints are now open and subject to moisture retention and further deterioration.

III. CORRECTIVE MEASURES

The existing filler will be removed from all joints to a minimum depth of 3/4 inch using hammers and small chisels. The existing cement type mortar is brittle and very poorly bonded. Spot checks indicated that hand removal would be the easiest and most effective method. The spot checks also revealed that it would be necessary to clean to depths greater that 3/4 inches in places in order to have a sound base for new application. Each step has a total of 4 cross joints plus one continuous joint at the bottom of the front edge.

Once the old mortar is removed the joints will be thoroughly flushed with potable water under pressure and brushed to remove any silt or other material which would interfere with a good bond. Following cleaning, the joints will be replaced with material recommended by the regional preservation specialists.

The cleaning in and around the mortar joints will likely result in an uneven appearance of the steps. Organic leaf stains have accumulated on the steps and risers since the last cleaning five years ago. This contributes to the current unsightly appearance of the steps.

It is proposed that the steps and risers be cleaned with a power pressure spray or other approved method in conjunction with the repointing operation.

IV. THE EFFECT

The proposed corrective procedures should block water percolation which can now occur at the weathered joints of the Memorial Building steps. It should also improve the appearance of the steps by eliminating the weathered joint conditions and organic leaf stains which are readily visible to everyone. These benefits can be obtained without making any changes in the historic structure itself and are essential as part of the maintenance needs of the facility.

United States Department of the Interior
NATIONAL PARK SERVICE
SOUTHEAST REGIONAL OFFICE
75 Spring Street, S.W.
Atlanta, Georgia 30303

TAKE PRIDE IN AMERICA

IN REPLY REFER TO:

26 NOV 1990

H30(SER-OHA)

Memorandum

To: Superintendent, Abraham Lincoln Birthplace, National Historical Site

From: Supervisory Exhibit Specialist, Historic Architecture Division, Southeast Region

Subject: Repointing and Cleaning of Steps at the Memorial Building, Bi-weekly Field Report, Pay Period 24, Ending 11/17/90

During the two-week period, the OHA preservation crew regrouted the joints in three and a half flights of steps. (There are four flights total) The grouting mortar was worked approximately four inches into the joints and held back one inch from the surface for the pointing mortar application.

Weather was generally moderate.

Project status by Work Items from Task Directive	% Complete Based on Hrs. Worked To Date
1. Repoint steps	70
2. Repoint enclosure walls at steps	70
3. Reseal concrete expansion joints	00
4. Power wash steps and terrace	100

Financial status	Amount Budgeted	Obligated to Date	Balance
Labor	$ 5,160	8,942	-3,782
Materials	450	67	383
Per diem & travel	3,600	4,317	- 717
Overhead	2,302	1,403	899
Totals	11,513	14,729	-3,217

United States Department of the Interior

NATIONAL PARK SERVICE
SOUTHEAST REGIONAL OFFICE
75 Spring Street, S.W.
Atlanta, Georgia 30303

IN REPLY REFER TO:

TAKE PRIDE IN AMERICA

28 NOV 1990

H30(SER-OHA)

Memorandum

To: Superintendent, Abraham Lincoln Birthplace National Historic Site

Through: ACTING Deputy Associate Regional Director, Cultural Resources, Southeast Region

From: Chief, Historic Architecture Division, Cultural Resources, Southeast Region

Subject: Modification to Task Directive for Repointing and Cleaning Steps of Memorial Building

This is to inform you that we cannot meet the objective of this project within our projected budget and schedule. The condition of the subsurface mortar in all the joints has been found to be very poor and provides neither a watertight nor sound base for repointing. As outlined in the original task directive, we had proposed raking out the mortar joints to a standard depth of one inch and then repointing them. In fact, to achieve a proper job, the deteriorated mortar needs to be completely removed to a depth of approximately four inches and then regrouted after which the steps can be repointed.

We therefore propose the following modifications to the task directive:

1. Completely replace all mortar joints in memorial steps.

2. Reseal concrete expansion joints next year when conditions are warmer. This would need to be rescheduled and refunded.

Total estimated cost for this modification is $10,768 to be charged to account #5540-7001-605. This estimate is based upon an additional two weeks on site for our four person crew. If the work is finished early, unused funds will remain in the park account.

To offset the considerable increase in costs required by this modification, we are applying unused overhead and material charges directly to labor costs. In addition, no additional overhead charges are being requested in this modification proposal.

Major cost categories are outlined below:

	Original Budget		Modified Budget	Total
Labor	5,160	(1)	7084	12,244
Overhead	2,302	(2)	0	2,302
Materials	450		0	450
Per Diem	3,600		3,684	7,284
Total	11,513		10,768	22,281

(1) Actual labor cost is projected to be $8,252. However, $898 in overhead and $270 in materials from the original budget will be charged against the additional labor cost.

(2) Overhead of $2,063 is waived.

Earl Gillespie, Head of OHA Field Services, will coordinate this project with you. If you have any questions concerning this modification please contact him or Barry Caldwell, Projects Administrator.

I concur with this task directive modification.

Superintendent

12/3/90
Date

ASSESSMENT OF ACTIONS HAVING AN EFFECT ON CULTURAL RESOURCES
Southeast Regional Office
(Attach continuation sheets as necessary)

A. Originating Office

1. Park: Abraham Lincoln Birthplace NHS

2. Description of proposed action:
( ) Implementing action included in plan under PMOA
( ) Other PMOA action
(X) Section 106 action not under PMOA

3. Cultural resource(s) affected by proposed action (name and LCS number, if applicable):

Memorial Building, LCS #2

4. Describe present condition of cultural resource(s):

The cultural resource involved is the Memorial Building. This formal marble and granite building was designed by John Russell Pope and constructed to house the traditional birthplace cabin. President Theodore Roosevelt laid the cornerstone in 1909 and President William Howard Taft dedicated the building two years later. This building and the cabin inside are the key features of the park.

The structural integrity of the building is basically sound. However, it currently lacks the facilities, i.e. sidewalks, ramps, and doors that fully conform to accessibility standards.

5. Describe the proposed action and explain why the action is needed:

The proposed action will involve the construction of two ramps to provide access to the building and inside the building for those visitors approaching it via the accessible trail. The trail leads to two granite steps (only historic fabric directly involved in this project) at the east side of the Memorial Building. A ramp is needed at this point to provide access to the plaza area (constructed of exposed aggregate concrete - non-historic) surrounding the building. A second ramp [redacted] is needed at the doors (non-historic) on the back side to permit access to the inside of the building (one step - approximately 6").

We propose to use exposed aggregate concrete to match existing plaza surface. A protective pad, such as a foam material, will be placed underneath the ramps to shield the existing surfaces.

The four exterior doors (non-historic) will be retrofitted with automatic door openers activated with a push button. The system operates from a radio signal which will eliminate unsightly wires. The components of the system will be integrated into the existing elements as unobtrusively as possible to minimize visual changes in the structure.

6. In affecting cultural resources the proposed action will (check as many as apply):

__ Destroy historic fabric.
__ Remove historic fabric.
__ Replace historic fabric in kind.
__ Replace missing historic fabric.
X Add nonhistoric elements to a historic structure.
X Remove nonhistoric elements from a historic structure.
__ Alter historic terrain, groundcover, or vegetation.
X Introduce nonhistoric elements (visible, audible, or atmospheric) into a historic setting or environment.
__ Reintroduce historic elements in a historic setting or environment.
__ Remove historic elements from a historic environment.
__ Remove nonhistoric elements from a historic environment.
__ Disturb, destroy, impair, or render inaccessible archeological (surface or subsurface) resources.
__ Possibly disturb currently unidentified archeological resources or historic fabric.
__ Incur gradual deterioration of historic fabric, terrain, or setting.
X Other (describe briefly): Provide full accessibility to interior of the Memorial Building - the only place park visitors can view the traditional birthplace cabin which is the focal point of the park.

Describe the indicated effect(s) concisely: This proposed action will introduce non-historic components - ramps, handrails, and a power door opener - into a historic setting. However, non-historic materials will only cover two granite steps which are a part of the historic fabric.

7. The proposed action is limited to preservation maintenance Yes ( ) No (X). If not, identify supporting approved plan(s), comment and/or action thereon by Advisory Council on Historic Preservation, dates of ACHP action and NPS approval, and section(s) of the plan(s) pertaining to the action. If none, so state: NONE

8. Identify any important relationships between the proposed action as it affects cultural resources and pertinent NPS management policies, standards, and guidelines:

Sec. 504 of the Rehabilitation Act of 1973, as amended in 1978

Special Directive 83-3: Accessibility for Disabled Persons

Americans with Disabilities Act of 1990

9. Describe any measures planned to minimize or lessen the loss or impairment of historic fabric, setting, integrity, or data:

The ramps will be poured on a foam pad to minimize permanent alteration of historic fabric. Contact with historic fabric is limited to two granite steps on east side of Memorial Building. Ramps will be exposed aggregate concrete to match existing material. Automatic door opener will use hardware to match existing material.

10. Identify supporting study data and date(s) of preparation (attach if feasible):

Accessibility Self Study Assessment - September 1990
Operations Evaluation - February 1991

11. Prepared by: Gary V. Talley Title: Chief, IAM

12. Signature of Park Superintendent: Carolyn L. Bond

Date: 5/6/91

8. Regional Cultural Resources Staff Review and Certification

1. The foregoing assessment is adequate; the proposed action is consistent with all applicable NPS management policies, standards, and guidelines reviewed and concurred in by the Advisory Council; and the proposal incorporates all feasible measures to minimize adverse effects to cultural resources.

2. The proposed action is authorized by a planning document or program reviewed and concurred in by the Advisory Council.

		Yes	No	N/A	
(Negative certifications must be justified on attachments.)	1	( )	( )		
	2	( )	( )	( )	Reg. Archeologist Date
( ) Energy Consultation Held	1	( )	( )	( )	
	2	( )	( )	( )	Reg. Historian Date
	1	( )	( )	( )	
Regional Energy Coordinator Date	2	( )	( )	( )	Reg. Historical Architect Date
	1	( )	( )	( )	
	2	( )	( )	( )	Regional Curator Date

Additional requirements of the proposed action:

Regional approval of proposed action including additional requirements.

(X) The proposed action, including any additional requirements stated above, meets all conditions in B.1 and 2, or is an Energy Management Project meeting only conditions in B.1, and therefore, satisfies the requirements of Section 106.

Deputy Associate Regional Director,
Cultural Resources
for the Regional Director

SEP 16 1991
Date

ORDER FOR SUPPLIES OR SERVICES

PAGE 1 OF PAGES

IMPORTANT: Mark all packages and papers with contract and/or order numbers.

1. DATE OF ORDER	2. CONTRACT NO. (If any)	3. ORDER NO.	4. REQUISITION/REFERENCE NO.
10/23/91	Open Market	1443PX5540920??	

5. ISSUING OFFICE (Address correspondence to)
Abraham Lincoln Birthplace NHS
2995 Lincoln Farm Road
Hodgenville, KY 42748

6. SHIP TO: (Consignee and address, ZIP Code)
Same as Item 5

SHIP VIA:

7. TO: CONTRACTOR (Name, address and ZIP Code)
Riverside Door Service, Inc.
10714 W. Manslick Road
P. O. Box 508
Fairdale, KY 40118

1?-1019210

8. TYPE OF ORDER
[X] A. PURCHASE — Reference your quote

Please furnish the following on the terms and conditions specified on both sides of this order and on the attached sheets, if any, including delivery as indicated. This purchase is negotiated under authority of: FAR 13

[ ] B. DELIVERY — Except for billing instructions on the reverse, this delivery order is subject to instructions contained on this side only of this form and is issued subject to the terms and conditions of the above numbered contract.

9. ACCOUNTING AND APPROPRIATION DATA
5540-1320-290-3230 ***

10. REQUISITIONING OFFICE
ABLI - Administration

11. BUSINESS CLASSIFICATION (Check appropriate box(es))
[X] SMALL [ ] OTHER THAN SMALL [ ] DISADVANTAGED [ ] WOMEN-OWNED

12. F.O.B. POINT	14. GOVERNMENT B/L NO.	15. DELIVER TO F.O.B. POINT ON OR BEFORE (Date)	16. DISCOUNT TERMS
Destination	N/A	45 days ARO	Net 30

13. PLACE OF INSPECTION AND ACCEPTANCE
Hodgenville, KY

17. SCHEDULE (See reverse for Rejections)

ITEM NO. (A)	SUPPLIES OR SERVICES (B)	QUANTITY ORDERED (C)	UNIT (D)	UNIT PRICE (E)	AMOUNT (F)	QUANTITY ACCEPTED (G)
	Furnish and install two Keane Monroe #4500 handicapped automatic door operators with 2 S?p remote control press wall switches. One bronze rail 58". Work includes installation of electrical wire from basement to door and removing existing doors and frames, cutting transome glass and reinstalling doors and frames. Includes one year warranty and service. This award made pursuant to PL100-656, Small Business Competitiveness Demonstration program	1	job	3,490.	3,490.00	

Other Bids: Premuim Door Service - $3,?
Construction Specialty - $3,676.59

SEE BILLING INSTRUCTIONS ON REVERSE

18. SHIPPING POINT	19. GROSS SHIPPING WEIGHT	20. INVOICE NO.		17(H). TOT. (Cont. pages)

21. MAIL INVOICE TO: (Include ZIP Code)
Abraham Lincoln Birthplace NHS
2995 Lincoln Farm Road, Hodgenville, KY 42748

17(I). GRAND TOTAL: 3,490.00

22. UNITED STATES OF AMERICA BY (Signature)

23. NAME (Typed)
Dean Karraker, Jr. SER043
TITLE: CONTRACTING/ORDERING OFFICER

NPS Form 10-3470 (3-86)

NATIONAL PARK SERVICE

ORDER FOR SUPPLIES OR SERVICES

PAGE 1 OF PAGES

IMPORTANT: Mark all packages and papers with contract and/or order numbers.

1. DATE OF ORDER	2. CONTRACT NO. (If any)	3. ORDER NO.	4. REQUISITION/REFERENCE NO.
2/8/92		1443PX5540920007	

5. ISSUING OFFICE (Address correspondence to)

Abraham Lincoln Birthplace NHS
2995 Lincoln Farm Road
Hodgenville, KY 42748

6. SHIP TO: (Consignee and address, ZIP Code)

Same as Item 5

SHIP VIA:

7. TO: CONTRACTOR (Name, address and ZIP Code)

Riverside Door Service, Inc.
10714 W. Manslick Road
P. O. Box 508
Fairdale, KY 40118

8. TYPE OF ORDER

☒ A. PURCHASE — Reference your quote

Please furnish the following on the terms and conditions specified on both sides of this order and on the attached sheets, if any, including delivery as indicated. This purchase is negotiated under authority of:

☐ B. DELIVERY - Except for billing instructions on the reverse, this delivery order is subject to instructions contained on this side only of this form and is issued subject to the terms and conditions of the above-numbered contract.

9. ACCOUNTING AND APPROPRIATION DATA

5540-1120-290-3238 $1140.00
5540-7001-605-3238 $ 745.50

10. REQUISITIONING OFFICE

11. BUSINESS CLASSIFICATION (Check appropriate box(es))

☐ SMALL ☐ OTHER THAN SMALL ☐ DISADVANTAGED ☐ WOMEN OWNED

12. F.O.B. POINT	14. GOVERNMENT B/L NO.	15. DELIVER TO F.O.B. POINT ON OR BEFORE (Date)	16. DISCOUNT TERMS
Origin		30 days ARO	Net 30

13. PLACE OF INSPECTION AND ACCEPTANCE: ~~Hodgenville, KY~~ N/A

17. SCHEDULE (See reverse for Rejections)

ITEM NO. (A)	SUPPLIES OR SERVICES (B)	QUANTITY ORDERED (C)	UNIT (D)	UNIT PRICE (E)	AMOUNT (F)	QUANTITY ACCEPTED (G)
	Provide labor, supplies and materials for the following:					
	Restore Solide brass door handle	1	ea	200.00	200.00	
	Solid brass 5" bolts and nuts for chain around cabin	14	ea	27.45	384.30	
	Special Corral Aluminum rail 24' x 42" (med bronze)	1	pc	1140.00	1140.00	
	Freight				161.20	

SEE BILLING INSTRUCTIONS ON REVERSE

18. SHIPPING POINT	19. GROSS SHIPPING WEIGHT	20. INVOICE NO.		17(H). TOT. (Cont. pages)

21. MAIL INVOICE TO: (Include ZIP Code)

2995 Lincoln Farm Road, Hodgenville, KY 42748 Abraham Lincoln Birthplace NHS

$1885.50

17(I). GRAND TOTAL

22. UNITED STATES OF AMERICA BY (Signature) ▶

23. NAME (Typed)

TITLE: CONTRACTING/ORDERING OFFICER

NPS Form 10-3470 (3-86)

NATIONAL PARK SERVICE

ORDER FOR SUPPLIES OR SERVICES

PAGE 1 OF PAGES

IMPORTANT: Mark all packages and papers with contract and/or order numbers.

1. DATE OF ORDER	2. CONTRACT NO. (If any)	3. ORDER NO.	4. REQUISITION/REFERENCE NO.
9/16/92		1443PX554092030	

5. ISSUING OFFICE (Address correspondence to)

Abraham Lincoln Birthplace NHS
2995 Lincoln Farm road
Hodgenville, KY 42748

6. SHIP TO: (Consignee and address, ZIP Code)

Same as Item 5

SHIP VIA:

7. TO: CONTRACTOR (Name, address and ZIP Code)

Gene Ray Electric Co, Inc.
304 Valley Creek Road
Elizabethtown, KY 42701

8. TYPE OF ORDER

[xx] A. PURCHASE Reference your quote

Please furnish the following on the terms and conditions specified on both sides of this order and on the attached sheets, if any, including delivery as indicated. This purchase is negotiated under authority of:

[ ] B. DELIVERY Except for billing instructions on the reverse, this delivery order is subject to instructions contained on this side only of this form and is issued subject to the terms and conditions of the above-numbered contract.

9. ACCOUNTING AND APPROPRIATION DATA

5540-7001-605-2557

10. REQUISITIONING OFFICE

11. BUSINESS CLASSIFICATION (Check appropriate box(es))

[ ] SMALL [ ] OTHER THAN SMALL [ ] DISADVANTAGED [ ] WOMEN-OWNED

12. F.O.B. POINT	14. GOVERNMENT B/L NO.	15. DELIVER TO F.O.B. POINT ON OR BEFORE (Date)	16. DISCOUNT TERMS
13. PLACE OF INSPECTION AND ACCEPTANCE			
Hodgenville, KY	N/A	30 days ARO	Net 30

17. SCHEDULE (See reverse for Rejections)

ITEM NO. (A)	SUPPLIES OR SERVICES (B)	QUANTITY ORDERED (C)	UNIT (D)	UNIT PRICE (E)	AMOUNT (F)	QUANTITY ACCEPTED (G)
	Furnish all materials and labor to accomplish the following: Install 1 receptable under counter (120 volt) Install a remote control lighting system with base unit mounting under counter Install relay cabinet in basement of Memorial Building Provide 2 hand operated buttons	1	job	580.	580.00	

SEE BILLING INSTRUCTIONS ON REVERSE	18. SHIPPING POINT	19. GROSS SHIPPING WEIGHT	20. INVOICE NO.		17(H). TOT. (Cont. pages)
	21. MAIL INVOICE TO: (Include ZIP Code) Abraham Lincoln Birthplace NHS 2995 Lincoln Farm Road, Hodgenville, KY42748			580.00	17(I). GRAND TOTAL

22. UNITED STATES OF AMERICA BY (Signature)

23. NAME (Typed)

Rebecca Thomas, SUR I 100
TITLE: CONTRACTING/ORDERING OFFICER

NPS Form 10-3470 (3-86)

NATIONAL PARK SERVICE

STATEMENT IN COMPLIANCE WITH SECTION 106 OF THE NATIONAL HISTORIC PRESERVATION ACT OF 1966. REPAIR AND PAINTING OF INTERIOR, MEMORIAL BUILDING, ABRAHAM LINCOLN BIRTHPLACE NATIONAL HISTORIC SITE, HODGENVILLE, KENTUCKY.

I. Proposed Undertaking

It is proposed that the interior surfaces of the Memorial Building be painted following the existing color scheme. The work will be accomplished by the Southeast Region Preservation Team. Surface preparation will include plaster patching and molding repair to return the base surface to its original form and eliminate visible indications of plaster separation.

II. Property Involved

The proposed undertaking would occur within Abraham Lincoln Birthplace National Historic Site near Hodgenville, Kentucky. The park contains 116.5 acres, all of which is listed in the National Register of Historic Places. Approximately 110.5 fo these acres are a part of the original 300 acre Sinking Spring Farm which was once owned by Thomas Lincoln. It was on this farm that Abraham Lincoln was born on February 12, 1809. Key historic elements of the park in addition to the land itself are a stone memorial building containing the traditional birthplace cabin and a limestone spring which was the namesake of the Lincoln Farm.

The specific feature to be involved in the proposed undertaking is the Memorial Building. This formal marble and granite building was designed by John Russell Pope and constructed to house the traditional birthplace cabin. President Theodore Roosevelt laid its cornerstone in 1909, and president William Howard Taft dedicated the building two years later. The building along with the cabin inside are the key features of the park.

The interior of the Memorial Building consists of a polished stone floor and stone lower wall. All surfaces above the 4 1/2 foot level consist of a plaster base which has been painted a pale blue with white trim. Extensive use of plaster molding was made on both the upper walls and ceiling. The present appearance does not meet desired standards due to discoloration of painted surfaces and extensive breakdown of plaster. The plaster damage exists throughout the building but especially areas around the windows.

III. Effects of Work

The proposed undertaking will result in no adverse changes to existing structural elements or appearance. The planned result will be an elimination of unsightly plaster damage and upgrading of appearance by applying fresh paint. The result should be a clean, well maintained appearance which will be in keeping with the original design intentions and with current operating standards.

Scaffolding will be required to repair and paint the ceiling and upper walls. All necessary safeguards will be taken to insure protection for the birthplace cabin during the entire procedure.

Form 10-1
Rev. April 68

Page ___ of ___

UNITED STATES
DEPARTMENT OF THE INTERIOR

REQUISITION

Requisition No

To: Contracting Officer, MARO

Bureau/Office: National Park Service

Date: 8/26/93

Appropriation/Allotment No: 5540-1131-290 $10,000
Project: 5540-7001-605 $13,450

Charge shipping costs to:

Deliver to: Thomas Stone National Historic Site

ITEM OR FORM NO	DESCRIPTION	QUANTITY	UNIT	UNIT PRICE	AMOUNT
	Interior repair - Memorial Building: Repair plaster, clean, paint				$23,450
	Specifications to be provided				
	Patterson Paint Contractor				
	Justification: See attached RO-8 and Task Directive				

To Be Completed by Fiscal Authority Only

FUND CERTIFICATION: Funds in the amounts shown are available and chargeable to the cost authorities shown above.

Signature: Rebecca Donato	Date: 8/26/93	Approved by (Signature): [signature]	Date: 8/26/93
Title: Admin. Support Assistant		Title: Superintendent	
Requisitioned by (Signature)	Date	Bureau Officer (Signature)	Date
Title		Title	

Prepare in single space typing. Use double space between items. Fill out top of requisition completely, showing complete shipping instructions.

INTERIOR REPAIRS - MEMORIAL BUILDING
ABRAHAM LINCOLN BIRTHPLACE NHS

The work to be performed shall consist of furnishing all labor, supervision, tools, materials, equipment and incidentals necessary to clean walls and ceiling, repair damaged plaster and repaint all existing painted surfaces inside the Memorial Building according to the following specifications:

1. Patching: Use plaster of type and texture matching existing adjacent plaster to repair cracks, dents and small holes in interior walls and ceiling. Where patch is not full depth of existing plaster, moisten surface of patch and apply plaster bonding agent in accordance with manufacturer's directions. Apply sufficient coats to bring all portions of wall out to same plane.

Cracks where surrounding area sounds solid when tapped lightly are to be sanded then plastered as described above to achieve a smooth surface.

Cracks where surrounding area sounds hollow when tapped lightly are to be cut, removed by pulling off loose, deteriorated, powdery, damaged plaster, without damage to substrate and other surfaces. Remove dust. Then plaster as described above to achieve a smooth surface.

Finished plaster patches are to match adjacent existing plaster in texture and finish; are to be free of surface blemishes and irregularities and cleaned of dust, ready for painting.

Materials:

A. Gypsum Plaster: ASTM C28, ANSI A42.1

1. Base Coat: Gypsum plaster, Type N
2. Finish: Gypsum plaster, Type G

B. Sand: ASTM C35, ASTM C144

C. Lime: ASTM C206, Type S.

D. Water: Potable

E. Liquid Bond Agent: MIL-B-1925A

F. Mild detergent such as Ivory Liquid.

2. Painting: Scope of work includes all interior painted surfaces of the Memorial Building.

Manually remove all existing damaged paint from interior painted

surfaces.

Prior to painting, all plaster patching shall be complete and thoroughly dry. No paint shall be applied to plaster surfaces until approved by the Contracting Officer.

Use mixture of mild detergent and water to remove soil, prints, stains, soot, and adhered material from all painted surfaces prior to painting.

Paint and Finish Product: Paint shall be Lyt-All Flowing Flatt, as manufactured by Pratt and Lambert, Inc. Paint products shall be fresh and well ground; shall not settle readily, cake, or thicken in consistency; and shall have easy application properties. Other painting materials not specifically described such as linseed oil, turpentine, mineral spirits, miscellaneous thinners, varnish, shellac, etc., shall be the highest quality of an approved manufacturer.

The paint colors to be used are:

A. "Fresno Blue"

B. "Silver Blue"

C. "Delft Blue"

A color coded chart, showing where colors are to be applied, is on file in the park superintendent's office.

The paint shall consist of one prime coat and two finish coats of designated colors.

Application: Secure approval of each coat prior to proceeding with the next.

A. Workmanship: Apply material evenly without runs, sags, or other defects. Each coat shall be thoroughly worked into the material being coated at an average rate of coverage recommended. Cover all surfaces completely to provide uniform color and appearance. All parts of moldings, trim, ornaments, edges and millwork shall be left clean and true to details without undue amount of paint in corners or depressions. Make edges of paint adjoining other materials or colors sharp and clean, and without overlapping. Spraying application method shall not be used. All surface coating shall he applied by brush.

B. Drying Time: Minimum time shall be as recommended hy paint manufacturer. Do not apply succeeding coats until the undercoat is thoroughly dry.

Cleaning

A. Touch up and restore finish where damaged.

B. Remove spilled, splashed, or splattered paint from all surfaces.

C. Do not mar surface of item being cleaned.

D. Clean all interior glass surfaces using cleaner compatible with existing filter film covering.

3. The work shall be carried out expeditiously, to be completed prior to February 12, 1994.

A protective covering shall be placed over the cabin for protection against dust, dirt and debris.

The contractor shall keep the work site neat, clean, and free from all waste materials and rubbish at all times.

The contractor shall provide necessary barricades and/or warning signs to safeguard park visitors walking on the grounds near the work area.

Should damages be incurred to the structure or surrounding areas because of the contractor's operations, despite protective measures, he shall repair same without any cost to the Government. Repairs shall be accomplished in a manner to meet the approval of the Contracting Officer.

106 STATEMENT

ABRAHAM LINCOLN BIRTHPLACE NATIONAL HISTORIC SITE

I. THE PROPERTY

The proposed undertaking would occur within Abraham Lincoln Birthplace National Historic Site near Hodgenville, Kentucky. The park contains 116.5 acres, all of which is listed in the National Register of Historic Places. Approximately 110.5 acres are part of the original 348.5 acre Sinking Springs Farm that was once owned by Thomas and Nancy Lincoln. It was on this farm that Nancy gave birth to Abraham Lincoln on February 12, 1809. Key historic elements of the park , in addition to the land itself, are a 1911 Memorial Building and the traditional birthplace cabin housed inside of it

The specific feature involved in this undertaking is the Memorial Building. This formal marble and granite building was designed by John Russell Pope and constructed to house the traditional birthplace cabin. President Theodore Roosevelt laid its cornerstone in 1909, and President William Howard Taft dedicated the building two years later.

The glass in the memorial Building's windows and doors has no ultra violet blocking properties. Therefore, direct sunlight is allowed to beam directly onto the traditional birthplace cabin. An inspection by the Regional Curator proved that both light levels and u/v levels are too high in the Memorial Building for proper conservation of the cabin.

II. THE UNDERTAKING

The National Park Service proposes to undertake preservation work on the Memorial Building to arrest deterioration of the cabin. The following National Park Service standard will be followed in this work: "All projects involving specialized housekeeping, repair, rehabilitation, or replacement of structural components and projects involving techniques for arresting or slowing deterioration of the historic fabric and its historic environment are conducted under the directions of a historic architect or archaeologist, as appropriate."

Having received verbal approval from both the regional Curator and acting Regional Architect, we plan to professionally install Valvac TB-20-X filters on the door glass and Valvac TB-50-X filters on the window glass. Since the majority of sunlight enters directly through the doors, that glass requires the darkest filter.

III. THE EFFECT

These filters will bring both the light levels and u/v levels into an acceptable range.

THIS DOCUMENT WAS TRANSCRIBED FROM AN ORIGINAL

ORDER FOR SUPPLIES OR SERVICES

PAGE 1 OF PAGES

IMPORTANT: Mark all packages and papers with contract and/or order numbers.

1. DATE OF ORDER	2. CONTRACT NO. (If any)	3. ORDER NO.	4. REQUISITION/REFERENCE NO.
12/18/92		1443PX554093003	

5. ISSUING OFFICE (Address correspondence to)

Abraham Lincoln Birthplace NHS
2995 Lincoln Farm Road
Hodgenville, KY 42748

6. SHIP TO: (Consignee and address, ZIP Code)

Same as item 5

SHIP VIA:

7. TO: CONTRACTOR (Name, address and ZIP Code)

Pro Tint
5906 Preston Highway
Louisville, KY 40219

MB

8. TYPE OF ORDER

[X] A. PURCHASE — Reference your ~~quote~~

Please furnish the following on the terms and conditions specified on both sides of this order and on the attached sheets, if any, including delivery as indicated. This purchase is negotiated under authority of:

[ ] B. DELIVERY — Except for billing instructions on the reverse, this delivery order is subject to instructions contained on this side only of this form and is issued subject to the terms and conditions of the above-numbered contract.

9. ACCOUNTING AND APPROPRIATION DATA

5540-7001-605-261a - $1,500.00

10. REQUISITIONING OFFICE

ABLI

11. BUSINESS CLASSIFICATION (Check appropriate box(es))

[ ] SMALL [ ] OTHER THAN SMALL [ ] DISADVANTAGED [ ] WOMEN-OWNED

12. F.O.B. POINT	14. GOVERNMENT B/L NO.	15. DELIVER TO F.O.B. POINT ON OR BEFORE (Date)	16. DISCOUNT TERMS
Destination	N/A	30 days aro	Net 30

13. PLACE OF INSPECTION AND ACCEPTANCE

Hodgenville, KY - ABLI

17. SCHEDULE (See reverse for Rejections)

ITEM NO. (A)	SUPPLIES OR SERVICES (B)	QUANTITY ORDERED (C)	UNIT (D)	UNIT PRICE (E)	AMOUNT (F)	QUANTITY ACCEPTED (G)
	Provide all materials [illegible] the following:		[illegible]	1,5[illegible]	[illegible]	
	Remove existing film and reapply film (color to be decided by park) including hard coat scratch protective coating and 15 year warranty					
	All work to be done at Memorial Building					

SEE BILLING INSTRUCTIONS ON REVERSE

18. SHIPPING POINT	19. GROSS SHIPPING WEIGHT	20. INVOICE NO.	17(H). TOT. (Cont. pages)

21. MAIL INVOICE TO: (Include ZIP Code)

Abraham Lincoln Birthplace NHS
2995 Lincoln Farm Road, Hodgenville, KY 42748

17(I). GRAND TOTAL: 1,500.00

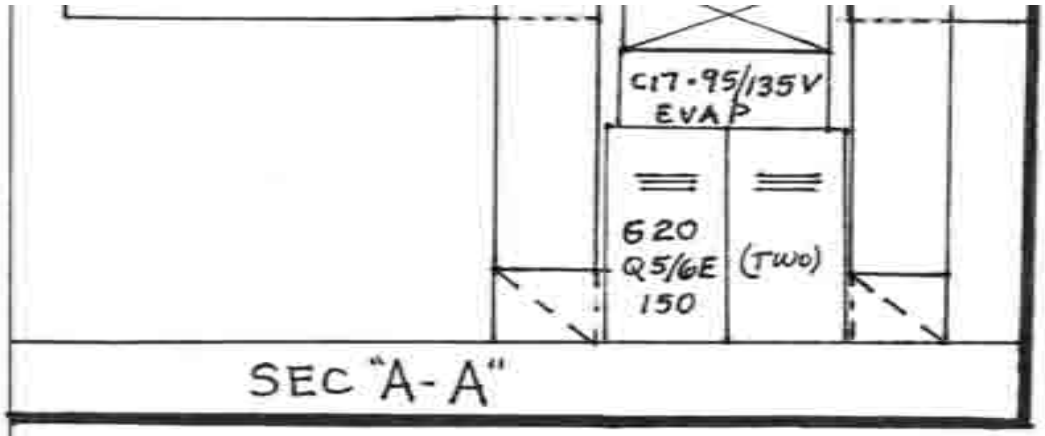
22. UNITED STATES OF AMERICA BY (Signature)

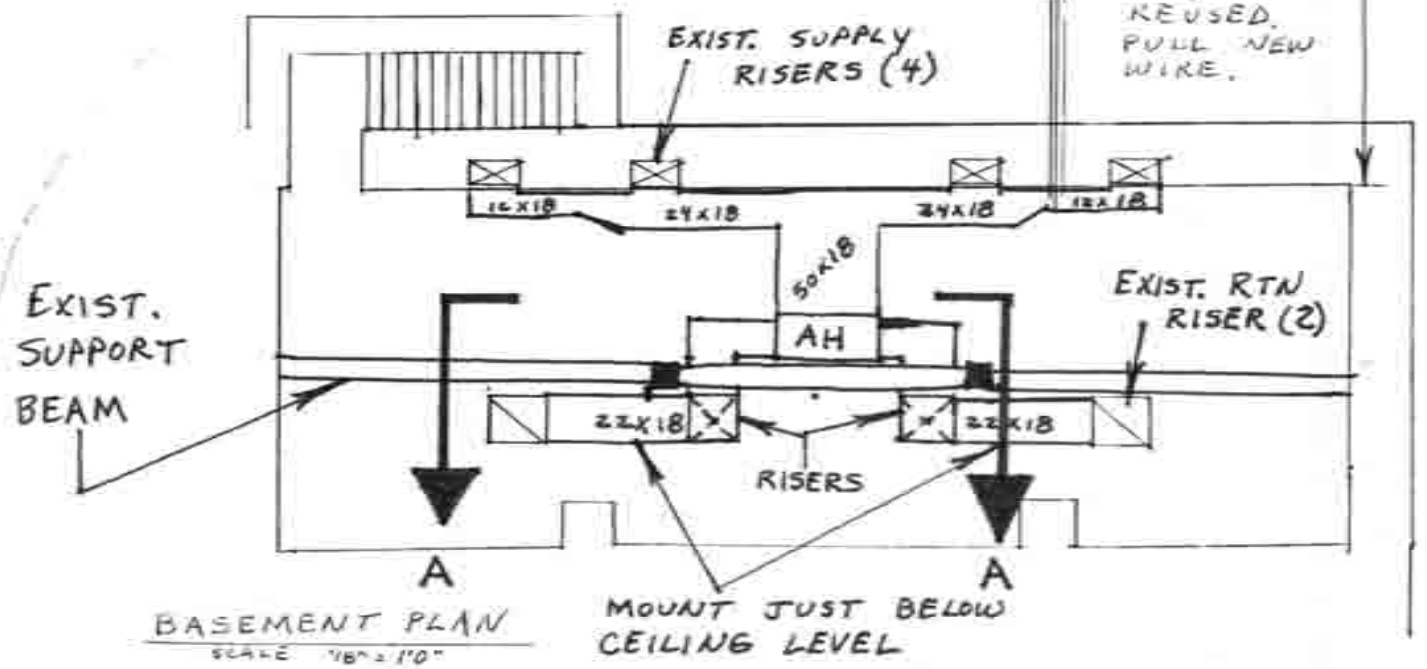
23. NAME (Typed)

TITLE: CONTRACTING/ORDERING OFFICER

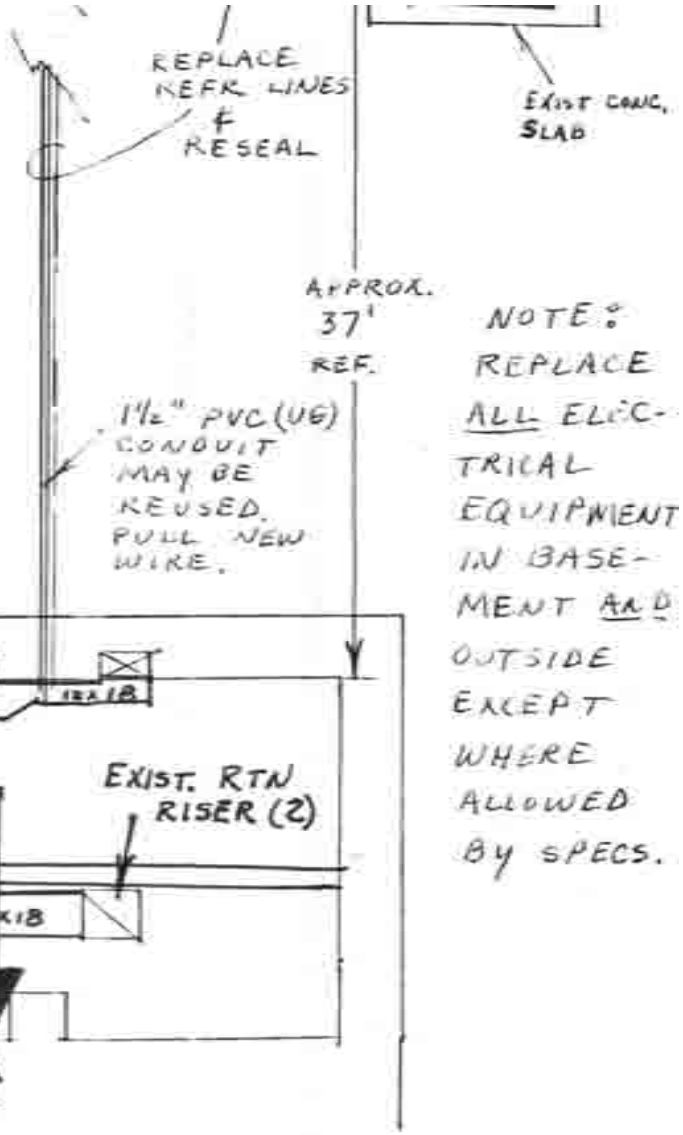
NPS Form 10-3470 (3-86)

NATIONAL PARK SERVICE





BASEMENT PLAN
SCALE 1/8" = 1'0"



NOTE: REPLACE ALL ELECTRICAL EQUIPMENT IN BASEMENT AND OUTSIDE EXCEPT WHERE ALLOWED BY SPECS.

NATIONAL PARK SERVICE

ABLI- REPLACE HVAC, 7-12-93

REV. 7-15-93

MEMORIAL BUIDING

United States Department of the Interior

NATIONAL PARK SERVICE

WILLIAM HOWARD TAFT NATIONAL HISTORIC SITE
2038 AUBURN AVENUE
CINCINNATI, OHIO 45219-3025

IN REPLY REFER TO:

P16(WHHO)

TAKE PRIDE IN AMERICA

5/10/96

MAY [illegible]
5/14/96

Memorandum

To: Chief, [illegible]

From: Exhibits Specialist, William Howard Taft

Subject: Trip report, April 16-17, Abraham Lincoln Birthplace

I arrived at Abraham Lincoln Birthplace on April 16, at the closing of a park staff meeting. Superintendent Karen Brown made a quick introduction to the park's staff for the purpose of my visit. A site inspection was then taken with Chief of Interpretation and Resource Management Gary Talley, Phillip Atherton, Maintenance Division, and myself. We discussed the following six topics of concern:

1. Condition of the tuck pointing between the granite steps in front of the Lincoln Cabin Memorial;

2. The exterior mounted iron roof access ladder on the Lincoln Cabin Memorial;

3. Clay daubing on the Lincoln Cabin;

4. Vegetation on the stone walls and general stone conditions at the Sinking Spring;

5. Surface of the concrete walkways with brown riverstone aggregate finish;

6. The one-half basement under the Lincoln Cabin Memorial.

Condition of the tuck pointing between the granite steps in front of the Lincoln Cabin Memorial findings:

1. Pointing: The Section 106 clearance was approved November 1, 1990, actual installation dates unknown. At least 25 percent of the bed joint pointing mortar and 30 percent of the head joints needs replacement. In the areas that loose samples were removed it was noticed that the depth of

the pointing mortar was only as deep as the face is wide. I have recommended that the depth of the new pointing must be at least twice the width of the face of the joint. Another concern is that a few of the steps may be pocketing water at the bed joint because the top of the step may be pitched inward.

The exterior mounted iron roof access ladder on the Lincoln Cabin Memorial:

2. Rust stains have run on both the stone and mortar faces. To stop future rusting the ladder steps will need to be cleaned of the surface rust using wire brushes. A rust inhibitive primer should be brush applied with the memorial wall masked in case of splattering. A rust preventive top coat of paint can then be brush applied following manufactures recommendations. After the painting is complete, remove the masking and allow the paint to cure. While the scaffold is set up, the rust stains should be lifted off of the surfaces of the granite and mortar. I will obtain the polstice recipe that is being used on the granite at George Rogers Clark and forward it to Gary Talley.

Clay daubing on the Lincoln Cabin:

3. An inspection of different episodes and all exterior elevations of the Lincoln Cabin indicated there has been at least three different episodes and methods of application and finishing. I feel that the condition of the daubing is intact with no evidence of spalling found on the memorial floor. I recommend only minimal daubing repair in the areas discussed at the inspection.

Vegetation on the stone walls and general stone conditions at the Sinking Spring:

4. The surface moss and ferns have an aesthetic appeal in and around this site. There is no indication at this time that any major deterioration is occurring because of the moss and ferns, and therefore, may remain for aesthetic purposes if management wishes. The honeysuckle roots should be removed because they will grow into the mortar. The wild rose should be cut back for public safety reasons. The flagstone landings between the step sections need to be documented, removed, and a new base (preferably stone dust) poured in and tamped. The flagstones could be reinstalled [illegible]

[illegible] the concrete walkways with the brown [illegible] finish:

5. Unfortunately, in all of the areas inspected, total replacement will be the only practical and durable solution. In the area where moss was growing on the surface, a stiff broom side-to-side sweep should remove the moss and reduce the slip hazard.

The one half basement under the Lincoln Cabin Memorial:

6. The slab in the basement has a few tight cracks, and an area about three feet square where the surface has spalled below an old coalchute. All of

these areas may be repaired using a cement patch material after all loose surface material and dust has been removed. Let the cement patch cure according to manufacture recommendations before painting.

After inspection of these areas of concern, a tool inventory was taken to see what the park will need to complete these projects. Onsite materials were also inventoried for new mortar samples. A trip was made to the nearest supplier, however, no materials were found that we needed. A look through the yellow pages found a supplier in Elizabethtown, Kentucky, who has the material we need. A sample was taken and purchase set up for the following day for a bag of white portland cement and a bag of hydrated lime type "S."

Upon [illegible]

I had a discussion meeting with Karen Brown and Gary Talley. I went [illegible] for materials and returned to the park to mix four different mortar samples. I will compare samples after they dry to see if the vendor's sand will be suitable.

If you have any questions, please call me at 513-684-3262. Thank you.

Bill Love

As the nation's principal conservation agency, the Department of the Interior has responsibility for most of our nationally owned public lands and natural resources. This includes fostering sound use of our land and water resources; protecting our fish, wildlife, and biological diversity; preserving the environmental and cultural values of our national parks and historical places; and providing for the enjoyment of life through outdoor recreation. The department assesses our energy and mineral resources and works to ensure that their development is in the best interests of all our people by encouraging stewardship and citizen participation in their care. The department also has a major responsibility for American Indian reservation communities and for people who live in island territories under U.S. administration.

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